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DRUG TESTING IN THE WORKPLACE

HEARINGS

BEFORE THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

THE LEGAL AND CONSTITUTIONAL ISSUES SURROUNDING AN EFFECTIVE EMPLOYEE DRUG TESTING PROGRAM

APRIL 9 AND MAY 13, 1987

Serial No. J-100-16

Printed for the use of the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE
92-844 WASHINGTON : 1989

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

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DRUG TESTING IN THE WORKPLACE

THURSDAY, APRIL 9, 1987

U.S. Senate,
Committee on the Judiciary,
Washington, DC.

The committee met, pursuant to notice, at 2:10 p.m., in room SD-226, Dirksen Senate Office Building, Hon. Joseph R. Biden, Jr. (chairman of the committee) presiding.

Also present: Senators Grassley and Humphrey.

OPENING STATEMENT OF CHAIRMAN BIDEN

The Chairman. The committee will come to order.

Today, the Senate Judiciary Committee will hold its first oversight hearing on the controversial subject of drug testing in the workplace. I want to welcome our distinguished witnesses and thank you for coming.

I hope we all agree that the serious and complex problem of drug abuse on the job must be dealt with in a thoughtful and responsible way. There is no easy answer. We must balance the constitutional rights of every employee with the need to have a drug-free workplace, particularly where public safety is involved.

Although specific data on the incidence of drug abuse by American workers are limited, there is widespread agreement that the impact of drug abuse in the workplace is substantial. In economic terms, a detailed study conducted in 1983 estimated that drug abuse costs $33 billion a year. The available data justifies the grave concern of employers, employees, consumers and policymakers.

It has been said repeatedly that we in the United States consume more illicit drugs than any other industrialized nation in the world. More than 50 million Americans have used marijuana, and approximately 20 to 25 million people in this country use it regularly. More than 25 million people have tried cocaine; approximately 5 million of them use it regularly.

A 1985 survey by a national help line at Fair Oaks Hospital in New Jersey revealed some startling statistics on drug use on the job. In a random sample of 227 callers, 75 percent said they had used drugs on the job; 64 percent said drug use had hindered their work performance; 25 percent reported daily drug use at work; 18 percent reported a drug-related accident on the job; 26 percent said they had been fired from a previous job due to drug use.

Drug abuse has been identified as a major factor in reduced worker productivity, increased tardiness and absenteeism, greater use of medical benefits, more accidents and injuries, and thefts.

As the effects of drug abuse in the workplace have been recognized, employers and workers have responded to the problem in a number of ways. Companies have adopted substance abuse policies prohibiting employee drug use and spelling out the consequences of violations. Employee assistance programs created to rehabilitate afflicted workers have been a common approach. They have been effective in reducing the human and business costs associated with substance abuse.

But for many employers, afflicted employees have not been identified soon enough. Out of combined interest in helping employees and maintaining a safe and productive workplace, more and more employers are turning to drug testing. It is being used for both job applicants and current employees. Twenty-five to thirty-five percent of the Fortune 500 companies are already conducting some type of urine testing for drugs. More are considering it.

One year ago, the President's Commission on Organized Crime recommended that public and private sector employers consider the appropriateness of drug testing of job applicants and current employees. Several months later, the President issued an executive order mandating random drug testing of certain federal workers.

As interested as we all are in a drug-free workplace, we must consider the serious issues raised by drug testing. Drug tests do not tell us when a substance was used or how frequently it has been used, nor do these tests measure impairment. They simply detect use. Questions regarding the reasons for testing, the circumstances in which testing should be required, and the disposition of the results must be given serious consideration.

Reputations, careers, and lives may be permanently affected due to the outcome of a drug test. Questions have been raised about the accuracy of the tests, the proficiency of the laboratories conducting the analyses and the overall handling of the samples. Labor representatives are concerned about the potential for urine testing to be used by employers to harass workers.

Serious legal questions have been raised, particularly about random drug testing. An employee's right to privacy must be balanced against an employer's right to a full day's work for a full day's pay and the public safety expectations.

Our first witness this morning is John Riley, the Administrator of the Federal Railroad Administration. Little did we know that we would be sitting here in this committee with me as chairman and you testifying about drugs, but here we are, and I welcome your testimony. If you would introduce the people with you, I would appreciate it and we look forward to your opening statement.

STATEMENT OF JOHN H. RILEY, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION, ACCOMPANIED BY GRADY C. COTHEN, JR., SPECIAL ASSISTANT TO THE CHIEF COUNSEL, AND WILLIAM LOFTUS, EXECUTIVE DIRECTOR

Mr. **Riley**. I certainly will, and let me say that after spending 4 years here as a staff person, I still have never gotten over the special feeling you get when you sit at one of these tables and look up against those walls where there really is history in the walls, and you just do not outgrow it.

On my left is Grady Cothen. Grady is an attorney who works with the FRA, but he is more than an attorney. Grady took an interest in the alcohol and drug issue a number of years ago and he is, I think, both on the technical end and on the legal end the best expert in this field that I have yet encountered.

On my right is Bill Loftus, who is the Executive Director of FRA, and Bill has worked with me very closely in our efforts to promote voluntary programs, and I thought that their expertise might assist the committee this morning.

The CHAIRMAN. Thank you.

Mr. RILEY. I thank you for inviting me to share one person's experience in trying to deal with the problem of substance abuse in one industry. It is important to recognize at the outset that prior to the time that our rule became effective a year ago in February, it was difficult to measure with precision how far alcohol and drug use had pervaded the railroad environment.

We had no authority to test even after an accident. We could only get hard data when there was a fatality, and thus we had an autopsy report, or when a crew voluntarily submitted to testing.

But even with these limitations, we have been able to confirm over a decade an average of 4.8 accidents a year in which alcohol or drug use was a significant causal factor.

The CHAIRMAN. When you say accidents, you mean any accident or an accident involving a train in motion?

Mr. RILEY. What I mean is what we define as a reportable accident, which would be an accident involving a train in motion or a fatality.

In addition to that, we had a 1978 labor-management survey called the REAP Report which indicated that between 14 and 24 percent of railroad operating employees were problem drinkers, and 13 percent of workers drank on duty. Like you, Mr. Chairman, I find those numbers high and hard to believe, but if they were even half true, we knew we had a problem.

More to the point, over a period of the prior seven years 16 percent of all of our post-accident autopsies tested positive for alcohol or drugs. The bottom line was that by the time 1983 came and I went over to the FRA, we knew that while we could not quantify it with precision, alcohol and drug-related accidents had become one of the largest single causes of employee fatality in our industry, and that is why we had to act.

Now, what we did, in late 1983 and in early 1984 I went out around the country with the gentlemen on my left and right and held field hearings in eight separate locations around the country, and the reason we did that is that we wanted to get away from the Washington professional on both sides of this issue that we heard from so often and hear from mid-level management and labor people on how things really worked in the field.

In the course of listening to that testimony and making some exploratory efforts with management and labor to negotiate a rule, which was not successful, I reached some conclusions that I want to share with you.

The first is that substance abuse in the railroad industry is no better and no worse than it is in any other basic industry. It is a societal problem that touches us because we are part of society.

The difference is, however, in the degree of public exposure that results when substance abuse invades our particular workplace. A lawyer with a substance abuse problem may commit malpractice; it happened in my law firm. There was a disbarment in my law firm because of it and the man has turned his life around and been reinstated.

A machinist who has a problem with drugs could lose a finger, but a railroad operating employee who brings substance abuse into the workplace endangers the lives of the entire crew, any passengers who may be on the train, and anyone unfortunate enough to live near the site of a major hazardous material accident.

It is that degree of public exposure that, in my mind, made our situation different from others and mandated aggressive action to come up with an effective alcohol and drug program.

Now, the rule that took effect last year is premised on two concepts; first, recognition that the public has an absolute right to be protected from the consequences of alcohol and drug use in the workplace; but, second, the equally important recognition that the problem of substance abuse is a very human problem, one that is often a symptom of other difficulties.

To be effective, you need more than a rule. You need a program, and the program has to go beyond detection and penalties to provide incentives for self-help, peer support, and opportunities for rehabilitation.

Now, consistent with this second premise, it is essential to recognize, and this is a very important point, that a strong rule and an effective voluntary program are not alternatives. They are not mutually exclusive; they complement one another.

A rule can detect; it can ensure that a problem employee is removed from the workplace. In the case of a non-dependent user, it can even deter, and a rule can reach the employee who will not respond to voluntary efforts. But a rule cannot create a peer environment that is conducive to prevention; a rule cannot create a place for a problem employee to go, and a rule cannot ensure early identification. Only a voluntary program can do this.

So at the onset we determined that as we moved toward a rule, we would, in lock step, attempt to establish a national voluntary program. We looked out in the industry and concluded that the Operation Red Block program on the Union Pacific was the best in the industry, a joint labor-management program, and we took it nationwide.

I have brought many materials which I would share with the committee today on Operation Red Block, what it does and what it is all about. With the cooperation of management and labor, we held seminars around the country that educated about 2,000 mid-level labor and management officials in the concept of a peer intervention voluntary program.

About half of all railroad employees in the country are now covered by Red Block agreements and I am campaigning every day to expand their scope, and I think the rule has made a difference.

You know, Mr. Chairman, one of the things that you hear repeatedly and I heard from management and labor when I went out on this—labor repeatedly argued that all we need is a voluntary program and we do not need a rule. Management so often argued to me, not always, but often, that these bypass programs undercut discipline; what we need is a tough rule with tough penalties.

Both those arguments are right and wrong. They are right in the sense that each side has a good approach. They are wrong in their mutual argument for exclusivity. What you really need is both because each does something that the other does not do.

Now, that is the voluntary program. Let me now turn to the rule. Our rule has six parts to it. The first three are rather simple. First, the rule prohibits railroad employees covered by the Hours of Service Act from possessing, using, or being under the influence of alcohol or any controlled substance.

Second, the rule requires that the railroad make certain specific inquiries when investigating the smaller accidents that we do not directly investigate. Third, the rule made mandatory post-accident toxicological testing after major railroad accidents of the type we experienced at Chase.

Now, the first three elements of our rule correspond very closely to NTSB's historic recommendations. However, when we reached that point, we concluded we could not stop there because if we did we would have a rule that was purely reactive and not preventive. We would have a rule that was oriented more toward accident investigation than toward prevention of the accident from occurring. So we went beyond it.

The problem was that those three provisions standing alone did not address either of the fundamental defects in the system that existed in our industry until 1984. Those defects were as follows.

First, because there was no established right to test, it was impossible to determine with certainty when an employee actually had violated Rule G. Therefore, Rule G enforcement came down to a supervisor making an allegation that he could not prove—one man's word against another; lengthy, drawn-out grievance procedures that were often traded off for other types of grievances at the end of the year. Supervisors were hesitant to act under these circumstances.

In addition to that, because we could not test, a cloud of suspicion hung over the 95 percent of the cases in which there was no alcohol or drug involved. So that system served neither management, safety, nor the employee well.

The other side of the problem was that the pre-existing system did not give any incentive for an employee with a problem to seek help voluntarily. If the only sanction is going to be that an employee will be fired upon discovery, then no employee is ever going to refer a fellow employee even if he fears for his own life.

NTSB calls that a conspiracy of silence. I think it is just human nature, and I am not even sure it is bad human nature. It may be one of the good things about human nature. We tried to reverse that incentive, so in our rule we incorporated three provisions to address those two problems.

First, we granted the industry the right to test for reasonable cause, and reasonable cause is a term of art. It is defined in the rule as three situations: (1) the type of observations that would induce a reasonable person to believe there is a violation of the rule prohibiting alcohol or drug use; (2) violation of certain specific safety rules that govern human performance; and (3) accidents and incidents where the employee's acts or omissions contributed to the occurrence or severity.

On the other side of the ledger, we mandated that every railroad incorporate a bypass program. A bypass program is exactly what its name implies. Every employee has a one-time right to step forward and say I have got a problem and I want help. If he does, he can bypass discipline. He will receive treatment and at the conclusion of his treatment and counseling program he will be reinstated in service with no loss of seniority.

In addition, when a worker is referred by a coworker, he has full access to bypass rights, so that a peer intervention committee or a coworker, when they know they have a problem employee, can refer that employee for help even without his consent without fearing that they will cost that man his job. So we have tried to create incentives for people to step forward and to seek self-help.

Finally, we did require pre-employment drug screening for the railroad industry because we felt it simply was not asking too much to ask somebody who wants to run a hazardous material freight train to show up clean on the date of his pre-employment physical.

Well, that is the rule. When we announced the rule, we were immediately greeted with litigation, and the litigation has gone on to this day; it is still pending in the ninth circuit.

The basic position of the labor organizations is that all the testing provisions should be struck down and only the bypass provision should remain. We strenuously oppose that. The rule was under injunction for a period of months, but the Supreme Court ordered that the rule go into effect pending the outcome of the litigation.

It went into effect in February, 1 year ago. This February, when we reached our 1-year anniversary of experience under the rule, I held a public hearing to review the program to learn what we did well, what we did poorly, and how the program could be corrected for the future where it had done poorly.

In the course of that we had some data, which I will share with the committee. Over the course of last year, we conducted mandatory post-accident tests in 175 cases. I am pleased to report that the railroads, in our judgment, applied the rule properly in the great majority of them. We found two cases in which the railroad undertested, one apparent egregious case in which a railroad overtested.

[The aforementioned material was subsequently supplied for the record:]

FRA provided the following information to complete its response to the Committee's question:

Between February 10, 1986, and January 15, 1987, the FRA reported that post-accident testing followed 175 qualifying accidents.

Overtesting:

During this period, there were 20 cases where the post-accident testing procedures were used where they should not have been. Since January 15, there have been four more. Most of these cases occurred because of a misunderstanding of the regulations early in the program. Nine of the cases involved the taking of samples pursuant to the reasonable cause testing provisions and sending the samples to FRA's designated post-accident testing laboratory.

Undertesting:

The Chase, Maryland, accident is the single very serious case of undertesting. Between April and December of 1986, FRA computers identified 42 cases that appeared to qualify for testing and there was not evidence on the forms that testing had been performed. FRA is following up on these on a case by case basis. What we are finding, generally, is that the railroads made a reasonable inquiry and a good faith determination. This is what is required by the regulation. When the accident costs were added up, at a later date, they were over the threshold. In other cases, an injury was reported several days after the accident and in others the railroad forgot to enter the testing information on the report. Proper sample material was obtained in most cases, but not all. We have not found any case of deliberate undertesting. We are, however, keeping close watch on this situation.

Administrative handling: With the exception of gross misuse of the regulation cases, FRA pointed out errors in testing to the railroads and indicated corrective action should be taken during the first year of the program. We have gone to great lengths to insure that the railroads understand the requirements, providing field training of railroad personnel and training materials to be used by the railroads. Most recently, we have begun to take a harder line and are issuing more violations. As of April 1, 1987, we have assessed penalties for five accidents involving 29 counts. There are at least six more cases being developed at this time.

The **Chairman**. That is your judgment. What about the judgment of your critics?

Mr. **Riley**. We have taken all of the complaints of our critics, Mr. Chairman, and that is how we found these cases. We did not find them ourselves. We acted on complaints of both sides. We did whatever had to be done in the course of the hearing process and we asserted civil penalties.

We asserted civil penalties in two notable cases. In one of the two cases, we determined it was an accident of judgment—early implementation of the rule, first time out of the box. We fined Conrail for what we thought was a clear case of deliberate over-testing brought to our attention by the labor organizations, and we agreed with them. We fined Amtrak for what we thought was a clear case of undertesting.

Now, in those 175 cases we tested 759 employees. I am pleased to tell you that 95 percent of them tested absolutely clean. Five percent of the employees tested tested positive for alcohol or illicit drugs; 1.2 percent for alcohol, 3.8 percent for illicit drugs. I find some solace in those numbers. Let me tell you why.

We can infer from the information available to us that had this rule been implemented 5 years ago, our failure rates would have been closer to double-digit numbers. You can see it in the autopsies, you can see it in the past testing results.

The fact that we were down around 5 percent in a suspect group of post-accident testing tells me that there has been behavior modification in our industry as a result of changing public attitudes, as a result of Operation Red Block, and as a result of this rule.

Have we gotten down to zero? No, we have not.

There were two other things that came out of the yearend review that I want to share with the committee and then I will yield to questions. One of them is this: Reasonable cause testing has proven to be fairly effective, and very effective in the case of alcohol.

But in the case of drugs we became convinced, in reviewing our year's experience, that one could, in fact, make a persuasive case for random testing, and here is why. It is simply not possible in all cases of drug use to recognize the symptoms of drug use, and the ability to visually perceive the symptoms is the key to the success of reasonable cause testing.

Chase, Maryland, is an excellent example. Here, two Conrail employees come on duty and they are met by a Conrail officer who has been through a special training program in recognizing drug-related symptoms. He interviews the employees, clears them for duty. An hour and 15 minutes later, we have a fatal train accident and both Conrail employees test positive.

I think what it illustrates is that drug symptoms are not always easy to spot, and that undermines the rule in two ways. First, one cannot create the triggering event that starts the reasonable cause test. Secondly, the employee does not believe that the symptoms are perceptible, and therefore the rule is not a deterrent.

So on the drug side there is a segment of the drug-using population that cannot be reached through reasonable cause testing, and if we are not prepared to tolerate that segment in our industry, and I do not think we should be, we need to move toward some form of randomized testing. That is the theory behind the legislation that the Secretary has offered.

Finally, Mr. Chairman, I want to make a comment on something that I know the committee is aware of, and if you are not, I want to make you aware of it. About a week-and-a-half ago, Secretary Dole issued a very brief statement.

The statement said that in the course of its yearend review, the Federal Railroad Administration had discovered certain evidence of activities and inconsistencies in reports received from CAMI, which is the FAA drug testing laboratory where all of our tests were done over the course of the first year.

The statement simply said that we had turned the evidence over to the Secretary and to the Inspector General. The Secretary herself requested that the Inspector General look into the situation.

Because there is an ongoing investigation, we have been instructed that we cannot comment publicly on most phases on the investigation, lest we would disrupt the investigation in progress.

However, I have talked at length with the Inspector General and there are two comments I can make to the committee this morning that I think would be helpful in understanding the scope of what is going on there underlying some concerns about it.

In the course of the last year——

The CHAIRMAN. John, we have been going for 22 minutes now.

Mr. RILEY. Fair enough.

The CHAIRMAN. I know it is very important, but we have got a large witness list and I would like to get to some questions, if I could. So why do you not summarize and conclude?

Mr. RILEY. I really had only two statements to make. Of the 38 cases in which we detected qualitative positives over the course of the last year, none of the information provided to the IG by FRA drew into question the validity of those qualitative positives, and I wanted to say that so that there was not a concern out there that we were dealing with evidence drawing into question the qualitative positives that we have produced in the testing program.

Secondly, as to Chase, the samples taken in the Chase accident were subjected to 12 separate tests which proved positive. We have questioned the consistency of the data on 2 of those 12 tests, one for each employee (THC in the blood).

I would simply emphasize to the committee that the data that I turned over to the Inspector General did not draw into question the qualitative findings of the other 10, which were positive. That is really the point I wanted to make, Mr. Chairman, so there was no confusion on that issue.

The CHAIRMAN. Let me ask you, it is estimated that as many as 108 million Federal employees—108 million; that cannot be right. [Laughter.]

Mr. RILEY. We do have a problem. [Laughter.]

The CHAIRMAN. We sure in heck do. My staff failed to put the point in; it is 1.8 million. I was going to say, my Lord, no wonder the deficit is what it is. [Laughter.]

Of the 1.8 million, one of whom does not know how to type—— [Laughter.]

The CHAIRMAN. By the way, I should not say that. I have got a great staff. [Laughter.]

I apologize to whoever typed this thing. Do you remember that old joke about one of our colleagues who was here when you were here, a fellow who will remain nameless who is known for having always read exactly what was put in front of him?

Mr. **Riley**. Yes, yes.

The **Chairman**. He was in his home State making a speech and he refused to give his speech writer a pay raise, and he said and now I would like to tell you, the Chamber of Commerce, what my ten-point program is, and he turned the page and it said "you are on your own, sucker." [Laughter.]

Let me start again. [Laughter.]

Mr. **Riley**. I found humor in that when I was a staff member. I do not anymore. [Laughter.]

The **Chairman**. It has been estimated that as many as 1.8 million federal employees could be subjected to drug testing under President Reagan's executive order. It has been further estimated that with urine tests for drugs ranging in cost from $15 to $250 apiece, the federal government could end up spending anywhere from $1.6 to $27 billion for one round of testing.

Have you calculated the cost of testing if the Transportation Department gets the legislation it wants?

Mr. **Riley**. Because that has been a departmental initiative and I really have not been called on to testify on it, we have not done calculations within FRA. I do believe that the Department has done one for the Department, and I will be glad to supply that to the committee. I do not know it in my head.

We have allocated about $160,000 to cover the cost of our testing program of railroad employees over the course of a year, and you know the number of blood and urine tests we took.

The **Chairman**. Let me ask you or your colleagues to respond to the assertion as to the accuracy of tests. What kinds of tests do you conduct? If it relates to testing for drugs or a urine test, does it require an employee of the agency to be present while the sample is taken? How are the samples handled? Where do they go?

Does it matter—this is what we hear—if you eat a roll with a poppy seed in it prior to testing, you could test positive, et cetera? Tell me about the testing.

Mr. **Riley**. Let me address that with a urine test; let us walk it through the system. When an employee participates in urine testing, he is taken to an independent medical laboratory and the sample is taken by independent personnel, not railroad officers.

What happens is there is a toxicological kit, which all of the railroads have, which they take to the laboratory along with an instruction book which the laboratories really do not need but should have.

The employee signs his name on the outside of the vial prior to giving the test. When he is given the test, then he initials it a second time to confirm that the test in the vial is his, and it is sealed with evidentiary tape which is a special type of tape that leaves a residue if it is moved or tampered with.

That then goes by overnight express to one laboratory. All tests are done at a single laboratory so we can control quality control. Now, initially, there is an immunoassay screen, and that is, in effect, a first screen which determines whether there is a——

The **Chairman**. Are those two things, though, critical for accuracy; that is, someone physically being there, the person personally signing off, that kind of tape, et cetera?

Mr. **Riley**. I think they are important because what they do is——

The **Chairman**. That is not what I am asking, whether they are important. I am asking could you, and would you, rely upon the accuracy of the test to respond and take action against an employee if you did not take those two first steps?

Mr. **Riley**. I would be reticent to, and I say "reticent"—I am not trying to duck out of your answer, but in my mind I am wondering if there might be another way to achieve the same thing. But you have to have at least that level of safeguards, in my judgment.

Grady, do you have a comment on that?

Mr. **Cothen**. Just that if any procedure is not observed that is critical to maintaining integrity, then you look back and see if you can separately depose the circumstances of that sample collection.

The **Chairman**. Well, that is going to be awfully hard when you are talking about other contexts, not with you all, but with thousands of people, millions of people.

Mr. **Riley**. It is much more difficult when you get into larger numbers. With us, it is relatively easy because our numbers are smaller, but I think you have to give the employee the right to initial the sample after he has given it so that he knows it is his.

Now, we do an initial screening, and the initial screening determines whether there is a putative positive, and we know that there is a certain percentage of false positives in that initial screen. So it is our absolute policy that no initial screening results will be released ever, and we do not release them.

Then there is a secondary test which is compound-specific; it spins off the first test. When you get a negative in the first test, that is the end. If there is a positive in the first test, we do a compound-specific, usually GC, and I think that that is——

The **Chairman**. I am sorry?

Mr. **Riley**. Gas chromatography/mass spectrometry is the normal type of secondary compound-specific test, which has a very, very high degree of accuracy. If that process is followed, one should not have a false positive issue.

I have not had a single test this year that has been protested.

The **Chairman**. What is the cost of that? I have to go vote and I will be back in a moment. What is the cost of that kind of test? If you get to the second stage of testing, from beginning to end, what is the cost?

Mr. **Cothen**. Mr. Chairman, it is like everything else; it depends. However, if you are talking about a mass production kind of program where you are working with hundreds of thousands——

The **Chairman**. No; cost for you.

Mr. **Cothen**. Our cost for the testing program was based upon a full set of services that were provided for a forensic program, which included analyzing a variety of samples with a variety of assays. So I cannot really give you a per-test cost.

On a one-shot basis, it can run you well over $100 to get a GC-MS confirmation. However, there are being offered on the commercial market test regimens which would spread the cost of confirmation over all of the tests taken, because only a small percentage will be positive. In those cases, you can do it for $20 or $30.

The CHAIRMAN. That is the second phase of the test, but how about the first phase? From the point where it goes to the lab, the urine specimen is taken and it tests negative, what is the cost up to that point?

Mr. COTHEN. The immunoassay test can be done—and Dr. Walsh will be before you shortly and can be more specific, but it can be done, if it is immunoassay alone, in the $20 range. The point with the GC-MS confirmation is that, of course, it is very costly on a one-shot basis and it would be very costly if every specimen tested positive.

But if you spread that over the cost of the program, it is not prohibitive.

The CHAIRMAN. I apologize. I am going to recess the hearing. I have about 6 minutes left to vote. When Senator Grassley gets back, he will begin the hearing and then I will come back. I have some questions relating to constitutional issues that I would like to raise and then we will move on to the next panel.

Mr. RILEY. And I am going to see if I can get some cost data for you while we break.

The CHAIRMAN. OK. We will recess for as long as it takes Senator Grassley to return.

[Recess.]

Senator GRASSLEY [presiding]. Senator Biden, through staff, asked if I would continue the meeting while he is getting ready to return from his vote.

I would start out with where you left with Senator Biden in my absence. Could you finish with that explanation of the costs for initial tests, as well as for the second testing?

Mr. RILEY. Grady, why do you not resummarize the last thing that you had said?

Mr. COTHEN. Yes, sir. Our understanding is that the immunoassay screens are very competitively inexpensive at this point. Dr. Michael Walsh from the National Institute on Drug Abuse will be before you later and, I am sure, can give you better information on the subject.

But it is our understanding that it is not uncommon to have costs quoted in the $20 range for a screen. Remarkably enough, in the $30 range or a little bit more, one can get the entire package on a per-sample basis; that is, spreading the costs of confirmation over the large number of negative as well as positive samples.

That makes programs for most employers reasonable, cost effective, from the point of view of their policies and objectives. Of course, on a one-shot basis, GC-MS confirmation would be much more expensive.

Mr. RILEY. On the other half of the question that the Senator asked, there is no reason to have a false positive if one follows a regimen which includes an initial screening confirmed by a compound-specific secondary test when there is a mandate for quantitative results, and we have found that to be effective in our program.

Like anything else, there are good labs and there are bad labs.

Senator GRASSLEY. Mr. Riley, there has been a lot of discussion about whether drug testing should be done randomly or only based on reasonable cause. I know you discussed this a little bit in the middle of your testimony here even while I was here this afternoon.

Some of today's witnesses are going to be arguing that random testing is unconstitutional, and I would like to have you tell us why the Federal Railroad Administration, which has not been testing randomly, now believes that random testing is necessary.

Mr. RILEY. Basically, the reason I described earlier in my testimony is that we now recognize that there are certain drug symptoms which cannot be recognized visually, and therefore cannot trigger reasonable cause testing.

We also understand that since employees recognize that these symptoms cannot be visually determined, they do not expect to be caught by reasonable cause testing, and thus it ceases to be a deterrent in that drug group.

I think it is important to recognize that random testing is both broader and narrower than reasonable cause testing. It is broader in the sense that it absolutely does require that people are tested. Under reasonable cause testing, there may or may not be a test.

On the other hand, it is narrower in that the number of people that are going to be tested in a given month is defined with specificity in advance. If you randomly select two employees to be tested but then you suspect that I am a violator, you cannot test me in a pure, random program.

As a consequence, I think what you need is some blend of random and reasonable-cause testing. Random testing, for the reasons I have cited, I think is something we ought to add to our program.

There is less opportunity for harassment under random testing because selection is based upon a random numbers program. It is not a matter of management discretion. Management really cannot intervene in the selection of employees in a random testing program. Random testing is also a better deterrent. I think you need to have a blend of both.

Senator GRASSLEY. The next question is in regard to your testimony that the FRA recently held hearings to review its experience from the first year of drug testing rules application. So I want to know what type of feedback you received from railroad workers about the rule's implementation.

Mr. RILEY. The leadership of the railway unions has been opposed to the rule from the beginning. We have been in court for the last 18 months over it and they did not take a different position in the course of the hearing.

Going beyond their general opposition to the rule, however, they pointed out things in the implementation of the rule that they were concerned with, principally some of the delays involved in receiving post-accident test results, and I frankly happen to agree with those concerns. We have changed our lab to get around that problem, among other reasons.

Senator GRASSLEY. That is my last question. I want to thank you and, through Senator Biden's staff, I have been asked to thank you and call up the next panel.

Mr. RILEY. I will be glad to do that. I might add that we have checked the cost of the DOT program, as the Senator requested, during the break. In fact, the DOT estimates that the cost of their program will be between $3 and $5 million. That is based on an estimated cost of $125, which includes both the collection and the test, of 26,500 samples.

Thank you.

Senator **Grassley**. Thank you very much.

[The statement follows:]

TESTIMONY OF JOHN H. RILEY
BEFORE THE
SENATE JUDICIARY COMMITTEE
APRIL 9, 1987

Mr. Chairman. I appreciate the opportunity to come before this Committee on the issue of drug use in the railroad workplace, and to share FRA's experience on what was unquestionably the toughest policy issue to come before the agency in my tenure.

Prior to adoption of the FRA rule, there was no effective way to measure the extent to which substance abuse had invaded the railroad workplace. That's because before the rule went into effect, FRA lacked any means to obtain post-accident toxicological tests. With rare exceptions, we could confirm the presence of alcohol or drugs only when ...

- An autopsy revealed it after a fatal accident, or

- A crew elected to submit voluntarily to testing.

Even with these limitations, we know that in the ten-year period between 1975 and 1984, alcohol and drug use played a causal role in, or materially affected the severity of, at least 48 accidents. Those accidents resulted in 37 fatalities, 80 nonfatal injuries, $20.4 million in railroad property damage, and $14 million in environmental clean-up costs. A 1978 survey on alcohol abuse conducted as part of a joint labor-management program concluded that 13 percent of railroad operating employees had consumed alcohol on the job; and an equal number had reported to work at least "a little drunk" during the study year. While the extent of the problem could not be defined with precision, its existence was clear. And it is equally clear that alcohol and drug use is linked to accident severity.

Alcohol was established as a causal factor in 15 percent of all fatalities in train accidents over a recent three-year period (excluding rail-highway grade crossing accidents). Autopsies available from a recent seven-year period reveal that 16 percent of the 136 employee fatalities tested positive for measurable levels of alcohol or drugs.

Inherent in these statistics was the potential for a truly catastrophic accident involving passengers or hazardous materials. One need look no farther than the alcohol-related derailment that occurred in Livingston, Louisiana on September 28, 1982, resulting in a hazardous material release that forced the evacuation of 2,700 persons. Allegations of drug use have also arisen in connection with the recent Conrail-Amtrak collision of Chase, Maryland. Alcohol and drug related accidents have become one of the largest single causes of employee fatalities in the railroad industry, and that, Mr. Chairman, is a key reason why we had to act.

In 1983, and again in 1984, FRA held field hearings in each region of the country, to ensure that mid-level management and rank and file employees--who lack the opportunity to come to Washington--could make their views heard. We heard from numerous experts, and consulted on a regular basis with the National Institute on Drug Abuse. I also attempted to form a consensus between management and labor on a rule incorporating both testing and bypass, something that proved impossible to accomplish. It was a useful exercise, however, because when we issued a final rule on July 31, 1985, we did so on the basis of a good understanding of the safety needs of the industry, the views of all affected parties, and the utility of the various competing techniques for control of the problem. I want to share some of these conclusions, as well as our experience during the first year of the rule's operation, with this Committee today.

As I listened to the testimony at the field hearings, I became convinced that the problem of substance abuse in the railroad industry is no worse--and probably no better--than in any other basic industry. It's a societal problem. I've seen it in my law firm, and in my own family. The difference, however, is in the degree to which public safety is placed in jeopardy when substance abuse is brought to the railroad workplace.

A lawyer with a drinking problem may commit malpractice; a machinist using drugs could lose a finger. But a person operating a train under the influence of alcohol or drugs has a frightening ability to threaten the lives of fellow employees, passengers, and any member of the public unfortunate to live near the site of a major accident. It's that difference in the degree to which public safety is placed in jeopardy that makes effective action so critical in our industry.

The rule which took effect one year ago is premised on two concepts:

First, recognition that the public has an absolute right to be protected from the consequences of alcohol and drug use in the workplace.

Second, the equally important recognition that the problem of substance abuse is a uniquely human problem, one which is often a symptom of other difficulties. To be effective, a program must go beyond detection and penalties to provide incentives for self-help, peer support, and opportunities for rehabilitation.

Consistent with this second premise, it is essential to recognize that a strong rule and an effective voluntary program are complementary--not mutually exclusive. A rule can detect, it can ensure that a problem employee is removed from service, and it can specify the opportunity for rehabilitation. In the case of a nondependent user it may even deter. But a rule alone cannot rehabilitate, it cannot ensure early identification, and it cannot create a peer environment conducive to mutual support. Only a complementary voluntary program can fully accomplish these objectives.

That's why, more than two years ago, the Federal Railroad

Administration invited labor and management representatives to join the agency in establishing a national voluntary prevention program patterned on the highly successful "Operation Red Block" initiated by labor and management on the Union Pacific. The national program now covers a majority of the railroad workforce, and it has made a difference. Training sessions have reached more than 2,000 mid-level management and union officials, and the goal is to double that number in the year ahead.

Implementation of the new rule, in conjunction with the voluntary program, gives the railroad industry a truly meaningful approach to substance abuse in the railroad workplace. The rule itself has six provisions, and they can be briefly summarized as follows:

First, the rule prohibits railroad employees covered by the Hours of Service Act from possessing, using, or being under the influence of alcohol or controlled substances while on duty. The rule also includes a "per se" prohibition on working with a blood alcohol concentration of .04 percent or more.

Second, the rule requires that the railroads make specific inquiry into alcohol and drug involvement in all train accidents and report any relevant information discovered. This rule, together with complementary changes to our reporting guide, will ensure that this important dimension of human performance is better reflected in the accident data.

Third, the rule requires post-accident toxicological testing, after major train accidents, impact accidents, and accidents involving employee fatalities. Post-accident testing has permitted us, for the first time, to identify with reasonable precision the role of alcohol and drugs in those occurrences that involve the greatest threat to the safety of the public and railroad employees.

These three elements of the rule correspond to recommendations issued by the National Transportation Safety Board in 1983. We believe that these provisions are important. However, had we stopped there, the rule would have been only partially effective, because it would have been entirely reactive, focused more on investigation than prevention. It would have failed to address the two primary problems with the pre-existing system--the inability to determine with certainty when Rule G had been violated, and the lack of meaningful incentives for troubled employees to seek help voluntarily.

Prior to the FRA rule, the railroad industry did not have the clear right to test. If you cannot test, you very often cannot determine with certainty whether an employee has violated Rule G. At best, it comes down to one person's word against another. The disciplinary action ends up in arbitration, often with insufficient "hard evidence" to assess the truth of the allegation--or the case is comprised out with other grievances. This makes supervisors hesitant to act in situations where it must be one person's word against another's, even if the supervisor is able to identify signs of impairment. That inability to determine violations with certainty has undermined the effectiveness of the railroads' Rule G.

The second fundamental failing in the system was the lack of any meaningful incentives for employees with problems to step forward voluntarily to seek help. If the only response to a Rule G violation is dismissal, employees will not bring peer pressure against those with alcohol and drug problems. If we had failed to create meaningful incentives for employees to come forward on their own, or for fellow employees to apply peer pressure, the rule would have been purely reactive. We would not have reached people until they became involved in a tragedy. As a consequence, we went beyond NTSB's recommendations to incorporate three provisions that in my judgment comprise the heart of our program.

The first additional element requires mandatory pre-employment drug screens. Some railroads have enjoyed a fairly low incidence of drug abuse in their employee ranks, perhaps because of the older average age of railroad employees. This provision will help to ensure that the problem does not worsen as new workers enter the railroad workforce.

Next, the rule authorizes the railroads to require breath and urine tests for reasonable cause, so they can determine with certainty when rule violations have occurred. This provision defines three situations in which testing may be required. The first is "reasonable suspicion." This refers to observations that the supervisor must be able to articulate, such as slurred speech or lack of coordination. The second basis for testing is the direct involvement of the employee in a reportable accident or injury, where the supervisor reasonably suspects that the employee's actions contributed to that accident or injury. The third basis for testing is violation of one of several enumerated operating rules that are crucial to safety. These are the kind of circumstances that clearly indicate a performance problem and call into question the fitness of the employee.

The final element of the rule is what we call the "bypass provision." It covers two situations. In the first, the employee steps forward and asks for help with a substance abuse problem. In the second, the employee is in violation of Rule G on the job and a co-worker identifies that employee to a supervisor. In both cases the railroad is required to provide an opportunity for the employee to get help, rather than terminating that person's employment. This is a proactive provision. It provides an incentive to step forward and seek help. It gets the troubled employee out of the system and into treatment before that employee does personal harm or harms someone else. It ensures that the troubled employee will be treated fairly and will be returned to service when he/she no longer presents a threat to safety.

Note that the testing and bypass provisions work together. The threat of detection will encourage troubled employees to seek help before they are caught. Co-workers will also be more likely to use the bypass provision to reduce their own exposure.

In February of this year, FRA held a public hearing to review its experience during the first year of the rule's application. We revealed, at that time, that during the rule's first 11 months of application, there had been 175 accidents which qualified for mandatory post-accident testing, resulting in the administration of tests for 759 individual employees. Five percent of those employees tested positive for the presence of alcohol (1.2 percent) or illicit drugs (3.8 percent). Compared with the relatively high rate of positives in tests and autopsies performed prior to the rule, this 5 percent figure is a sign of progress. It appears to demonstrate that behavior modification has occurred since the adoption of the rule. That same conclusion can be reached by analyzing the results of the Southern Pacific's testing program, which is now in its second year. Positive results in the second year of testing are less than half the ratio of positives in the first, suggesting that the combination of testing and rehabilitation opportunities is an effective approach to the problem of workplace substance abuse. At the same time, a 5 percent positive rate makes clear that the public is still exposed to significant consequences of alcohol or drug use in the railroad operating environment. That is simply not acceptable and demonstrates that more must be done.

Some of the remaining problems can be addressed by continuing application of the existing rule, and by an intensified effort to expand and improve the Operation Red Block program. I can assure the Committee that FRA is committed to accomplishing both of those objectives. But we have also learned that symptoms of drug use are often not recognizable, even to the relatively trained eye. Nor do we believe that drug users are convinced that their symptoms are perceptible. As a consequence, in the drug area, there is a certain percentage of employees for whom a reasonable cause testing program will provide neither detection nor deterrence. These individuals represent a continuing threat to themselves, their fellow employees, and railroad passengers. To enhance our program's ability to reach these individuals, the Secretary actively supports legislation that is currently before the Congress to provide the Department of

Transportation clear legislative authority to implement a random testing program. The addition of random testing to the program already in place will truly give the Department--and the public--a program with maximum achievable effectiveness. And when one recognizes the potential impact of substance abuse in the railroad workplace, it becomes clear that the public deserves no less.

The alcohol and drug problem is a real one, and I believe that the program we have adopted is a fair and effective response. I am absolutely convinced that railroad employees will live, and improve the quality of their lives, because of the program.

Senator **Grassley**. Would the next panel come—Lawrence Mann, Gene Upshaw, Edward Weihenmayer, R.V. Durham, and Arthur Bunte? Once again, for Senator Biden, I would suggest that he asked me to remind you to summarize your statements.

Would you proceed as you were introduced and, as you speak, introduce yourself for the benefit of the reporter? We will start out with Mr. Mann.

STATEMENTS OF A PANEL CONSISTING OF LAWRENCE M. MANN, ATTORNEY, RAILWAY LABOR EXECUTIVES' ASSOCIATION; GENE UPSHAW, EXECUTIVE DIRECTOR, NATIONAL FOOTBALL LEAGUE PLAYERS ASSOCIATION; EDWARD A. WEIHENMAYER III, VICE PRESIDENT, HUMAN RESOURCES, KIDDER, PEABODY CO., INC.; R.V. DURHAM, DIRECTOR OF SAFETY AND HEALTH, INTERNATIONAL BROTHERHOOD OF TEAMSTERS; AND ARTHUR H. BUNTE, JR., PRESIDENT, TRUCKING MANAGEMENT, INC.

Mr. **Mann**. Senator, my name is Lawrence Mann. I am an attorney for the Railway Labor Executives' Association. We represent all the crafts of rail workers in the country.

I think I should first comment on certain of the statements made by Mr. Riley. I guess I am the culprit. I filed the lawsuit against the Federal Railroad Administration for one very simple reason. I think the rule is unconstitutional, and the reasons are very clear.

Number one, the ruling is based upon a concept that the mere fact that if an employee violates some operating rule or the mere fact that he or she happens to be a crew member on a train that is involved in an accident, irrespective of whether the crew member is the engineer or a conductor taking tickets, the entire crew is tested. The nexus is not there between cause of the accident or of the rule violation and being impaired. The rule jumps, in our view, unconstitutionally.

I am not going to get into the discussion of the cases, but I do want to comment about the past year's experience. As stated by Mr. Riley, only in 5 percent of the cases could it be argued that there was any impairment.

The facts are, however, that there are no recognized tests which will determine impairment. The FRA rule permits a railroad to fire or otherwise discipline an employee if there is one-thousandth of a nanogram present in a sample. There is no threshold level, and that presents a serious problem. If there were reliability in the testing, then maybe there would be some merit in the way the rule is written.

Now, superimposed on top of all of this, we have the rights of the railroads themselves to test outside of the Federal rule. We also now have pending in Congress, reported recently by the Senate Commerce Committee, legislation which you are aware of that mandates random testing. We just think the FRA and the proposed random testing legislation is unconstitutional.

Mr. Riley failed to tell you that the laboratory that they thought so highly of when this rule was promulgated last year, CAMI, is no longer being used by the Federal Railroad Administration. The entire testing procedures of CAMI are subject to investigation at this point.

There were 38 employees who have either been fired or disciplined in some way because of these tests. Now, all of a sudden we find out that this testing laboratory is not worth a darn.

A new laboratory has been designated by FRA without any detailed consideration of its qualifications, at least publicly. The FRA internally has just picked the laboratory, which may be fine. However, there should be some opportunity on behalf of the public to make some determination as to the validity of what FRA did, and why they chose this laboratory. I have nothing against that Center for Human Toxicology.

We feel that if you are going to have testing, it should be based upon some cause and it should be based upon some reliability of the testing. There is no evidence whatsoever that any of these employees who were tested positive by CAMI were, in fact, impaired.

Number two, there was no monitoring by the Federal agency. There should be adequate monitoring of the laboratory if the laboratory tests are going to result in punitive action.

Thank you very much.

[The statement follows:]

TESTIMONY OF LAWRENCE M. MANN
RAILWAY LABOR EXECUTIVES' ASSOCIATION

BEFORE THE
SENATE JUDICIARY COMMITTEE ON MANDATORY RANDOM DRUG AND ALCOHOL TESTING

My name is Lawrence M. Mann. I am the attorney for the Railway Labor Executives' Association in this matter. The RLEA represents all the crafts of the railroad workers in this country, and the names of the constituent organizations are as follows:

American Railway & Airway Supervisors' Association, Division of BRAC
American Train Dispatchers Association
Brotherhood of Locomotive Engineers
Brotherhood of Maintenance of Way Employees
Brotherhood of Railroad Signalmen
Brotherhood of Railway, Airline, Steamship Clerks, Freight Handlers, Express and Station Employees
Brotherhood of Railway Carmen, Division of BRAC
Hotel Employees and Restaurant Employees International Union
International Association of Machinists and Aerospace Workers
International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers
International Brotherhood of Electrical Workers
International Brotherhood of Firemen and Oilers
International Longshoremen's Association
National Marine Engineers'Beneficial Association
Railroad Yardmasters of America, Department of UTU
Seafarers' International Union of North America
Sheet Metal Workers' International Association
Transport Workers Union of America
United Transportation Union

My testimony will point out the serious deficiencies in proposed legislation currently pending before the Senate Committee on Commerce, Science and Transportation which requires random alcohol and drug testing of transportation employees. However, it has not been introduced in its reported version. A draft bill was reported favorably to the Senate on March 10, 1987. I will restrict my discussion to the implications of the proposed legislation on railroad workers. Railway labor urges you to exert your influence on the other members of the Senate to help defeat this ill-conceived legislation. Even though the bill was reported, many Senators on the committee expressed serious concern with its provisions, and some explained that they voted in favor only to expedite consideration of the matter by the full Senate.

The bill is defective in many respects, but most of all it is unconstitutional. For the Senate Report, Senator Daniel Inouye has presented additional views and discussed the unconstitutional aspects of the random testing. I am attaching his comments as Exhibit 1. Rail labor fully supports the views expressed by Senator Inouye.

In case there is any misunderstanding by some about railway labor's position on random testing, the RLEA strongly opposes such testing on constitutional grounds as well as for other valid reasons set out in this testimony.

A quote from Judge H. Lee Sarokin in Capua v. City of Plainfield, 55 U.S.L.W. 2170 (D. N.J. 1986) cogently expresses our position:

> "If we choose to violate the rights of the innocent in order to discover the guilty, then we will have transformed our country into a police state . . . . In order to win the war against drugs, we must not sacrifice the life of the Constitution in the battle."

The recent Supreme Court decision in O'Conner v. Ortega, 55 U.S.L.W. 4405 (March 31, 1987) also lends support to the point that random testing is unconstitutional. In a plurality opinion Justice O'Conner made it clear that a search will not be justified unless there are reasonable grounds for suspecting that the search will turn up evidence of misconduct.

Last week the railroad industry was shocked to learn that the alcohol and drug tests performed by, the Civil Aeromedical Institute in Oklahoma City, may be flawed. All of the mandatory testing prescribed by the Federal Railroad Administration of railroad crews involved in certain accidents/incidents are performed by CAMI. In addition, the laboratory conducts the Federal Aviation Administration's tests after aviation accidents.

Between February 10, 1986 thru January 15, 1987, CAMI tested 759 railroad workers and it found 9 (1.2%) positive for alcohol and 29 (3.8%) positive for drugs such as marijuana and cocaine. A copy of the test results are attached as Exhibit 2. The grim reality of the above is that 38 employees were implicated by CAMI for illegal alcohol or drug use and these employees have either been fired or disciplined in some other way. With the news of the irregularities at CAMI, Congress should require the railroads to immediately reinstate all the affected employees with back pay and all other rights they had at the time of termination. All employees should receive full restitution of any losses incurred as the result of CAMI's testing.

I should add that the irregularities by CAMI are only the tip of the iceburg. The FRA's rules on testing authorize railroads to test employees for alleged infractions of certain designated railroad operating rules. In addition the railroads have their own rules which prohibit the use of alcohol or drugs, commonly referred to as Rule G. Such prohibitions have been in effect since 1897. Until recent years alcohol was the prohibited substance, and testing was required only when an employee exhibited objective signs of impairment. One can readily understand the confusion of an employee who is subjected to testing under three different types of rules with differing standards. All of these tests under the FRA's authorized testing and under the railroad industry's Rule G are performed by laboratories chosen exclusively by each individual railroad. The labs are not certified, except in two states, and there is little or no monitoring of the performance of these facilities. Nevertheless, the FRA has shut its eyes to the need for accurate tests, and has allowed the railroads complete autonomy in choosing and monitoring these laboratories.

The proliferation of testing laboratories nationwide and the tendency to cut corners because of increased competition, has led to serious questions regarding the accuracy of the tests. In a study by the Federal Centers for Disease Control in 1985, 13 of the country's leading testing laboratories were analyzed for accuracy. In performing the investigation, the CDC secretly sent the lab samples to be analyzed. The study published in the April 26, 1985, Journal of the American Medical Association reported error rates as high as 69% and stated that the laboratories in general suffered from serious shortcomings in their quality control.

Further adding to the already questionable accuracy of test results, there is no recognized standard to establish when a person is impaired or when a drug was used. The characteristics of marijuana, for example, may cause it to be retained in the body's fatty tissue for a couple of months. Yet, the FRA's rules allow a railroad to impose sanctions against an employee where the results exceed 0.00% of a drug metabolite.

The rail unions and many of the railroads have jointly developed programs known as employee assistance and Operation Red Block. The employees assistance program provides counseling and rehabilitation services. Expertise is provided to identify troubled employees, and to treat, educate or rehabilitate those in need of assistance. There are about 50 such EAPs on the railroads today. The EAPs have been buttressed by Operation Red Block. Its basic elements are:

1) Members are advised that "we do not condone the use of alcohol or drugs on duty."

2) Local unions form prevention committees of volunteers to field complaints about members using drugs or alcohol while on duty. Committee members insist that users quit their habits and urge them to contact an employee assistance counselor if help is needed.

3) Local unions ratify Rule "G" By-Pass Agreement which allows members to confront other members who use alcohol and drugs on duty and refer them to the Employee Assistance Program for counseling without loss of job, threat of punitive action or marring of personnel records. This by-pass around normal Rule "G" discipline is afforded only once in a career.

4) Companion By-Pass Agreement makes it possible for an employee charged with a Rule "G" violation by a carrier

officer to exercise an option of either going through a Rule "G" investigation or enrolling in the Employee Assistance Program. If the employee chooses to enroll he will be placed on probation, and if he follows the advise of the counselor he will not be dismissed from service.

5) Operation Red Block - after steps 1-4 are in place, the Labor Sponsored Information and Awareness Program is ready for its active prevention role.

We have found that these programs have been very effective in reducing alcohol and drug problems, as well as overcoming the tendency to protect substance abusers from detection and discipline. If enacted, the proposed legislation will create havoc with these programs, and likely render them ineffective. Random testing would create an atmosphere where employees would have little incentive to cooperate with management in identifying troubled employees needing assistance.

In conclusion, the random testing proposal is a bad piece of legislation and should be soundly defeated when brought to the Senate floor for a vote.

ADDITIONAL VIEWS OF SENATOR DANIEL K. INOUYE

Relating to the Transportation Employees Safety and Rehabilitation Act of 1987

I have grave reservations regarding the Transportation Employee Safety and Rehabilitation Act of 1987. Although I voted in favor of reporting this bill, my action should not be construed as support for this proposed legislation. Rather, my vote was cast for the sole purpose of promoting the expedient consideration thereof. Accordingly, in light of the pressing concerns elaborated upon below, I reserve the right to submit amendments to this bill.

There are several problems with this bill as it now stands. They include: (1) potential unconstitutionality of random testing of all employees covered therein, or as it affects numerous classes of employees whose connection to public safety is attenuated; (2) silence with regard to the funding of this massive undertaking and the ramifications thereof; and (3) silence with regard to a remedy for an aggrieved employee whose privacy guarantees are violated..

Unconstitutionality of Random Testing

This bill mandates drug testing for pre-employment screening, post-accident investigations, and when based on reasonable suspicion. Testing under these circumstances would survive constitutional scrutiny. However, random testing without reasonable suspicion has been found unconstitutional as a fourth amendment violation of an employee's right to privacy.

In determining whether a search and seizure is reasonable, courts have balanced the government's interest in searching against an individual's right to privacy. New Jersey v. T.L.O., 469 U.S. 325 (1985). In ascertaining the weight of an individual's privacy interest, courts have unanimously found that the seizing of blood constitutes a grave invasion of privacy within the meaning of the fourth amendment. Schmerber v. California, 384 U.S. 757, 767 (1966); McDonell v. Hunter, No. 85-1919, slip op. at 8 (8th Cir. Jan. 12, 1987) (available on LEXIS). Further, the degree of intrusion involved in the seizing of urine has been held akin to the taking of blood. "Though urine, unlike blood, is routinely discharged from the body so that no actual [physical] invasion is required for its

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collection, [both can be] analyzed in a medical laboratory to discover numerous physiological facts about the person from whom it came." Capua v. City of Plainfield, No. 86-2992, slip op. at 7-8 (D.N.J. Sept. 18, 1986). Moreover, it is the act of discharging this fluid upon which the reasonable expectation of privacy attaches. Consequently, in light of an individual's reasonable expectation of privacy in these fluids, the employer must have a compelling interest to test before it will be held constitutional. Proponents of this Bill contend that the government has a compelling interest to protect public safety. This is a well intended and strong government interest. However, in light of recent court decisions, it is highly questionable whether it is sufficient to outweigh the employee's right to privacy.

Various federal courts have been asked to determine whether random testing of firefighters, U.S. customs inspectors, and civilian police officers was constitutional. Although the direct impact of the responsibilities of these employees on public safety was not questioned, courts, nonetheless, held that the employees' constitutional right to privacy outweighed the government's interest in drug testing without reasonable suspicion. See Capua v. City of Plainfield, 55 U.S.L.W. 2170 (D.N.J. 1986) (testing of fire fighters without reasonable suspicion unconstitutional); Lovvorn v. City of Chattanooga, 55 U.S.L.W. 2170 (E.D. Tenn. 1986) (same holding); American Federation of Government Employees v. Weinberger, 1 IER Cases 1137 (S.D. Ga. 1986) (Department of Navy civilian police officers' remote relation to national security or public safety insufficient to find testing constitutional); National Treasury Employees Union v. von Raab, 55 U.S.L.W. 2284 (E.D. La. 1986) (drug testing of U.S. customs inspectors unconstitutional without reasonable suspicion). It may be argued that the public safety interest implicit in the responsibilities of air pilots and rail conductors is more substantial than that of fire fighters, U.S. customs inspectors, or civilian police officers. However, it cannot be disputed that the interests are clearly similar. Consequently, if challenged, a court may also find this proposed drug testing of transportation employees unconstitutional. This position is further supported by case law involving police officers and bus drivers wherein drug testing was allowed solely because of the existence of reasonable suspicion. Turner v. Fraternal Order of Police, 500 A.2d 1005 (D.C. 1985) (drug testing of police officers permitted where individualized suspicion of drug use found); Amalgamated Transit Union v. Suscy, 538 F.2d 1264 (7th Cir.), cert. denied, 429 U.S. 1029 (1976) (drug testing of city bus drivers permitted where reasonable suspicion of drug use found).

Moreover, the more attenuated an employee's responsibilities are to impacting public safety, the greater the possibility that this legislation would be found unconstitutional as applied thereto. For example, the bill proposes that drug testing be administered to aviation crew members, airport security screening contract personnel and similar positions in the rail and commercial motor vehicle industries. These positions seem quite similar to that of a bus attendant who the D.C. District Court held could not be tested without reasonable suspicion in light of her diminished connection with public safety. Jones v. McKenzie, 628 F. Supp. 1500 (D.D.C. 1986). Hence, there is a very strong probability that the testing of these classes of air, rail, and motor vehicle employees would also be found unconstitutional. Based on this strong probability, if the Bill were to pass in the same haste that it was written, countless litigation would surely result therefrom. The cost of court battles runs high -- not only in terms of the financial calculations, but also in the number of lives disrupted and number of careers destroyed -- as various classes of employees test the constitutionality of this legislation.

Proponents of the Bill rely on a few court cases and the Coast Guard's drug testing program to support their position. However, their reliance is misplaced. First, the military coast guard, unlike the private sector transportation employees, have a diminished expectation of privacy upon entering the U.S. military service. The D.C. Circuit stated, in Committee for G.I. Rights v. Calloway, 518 F.2d 466 (D.C. Cir. 1975), that soldiers are subjected to inspections from the first day of boot camp thereby decreasing their reasonable expectation of privacy. Consequently, it is quite tenuous to rely on Calloway or the Coast Guard program as the basis to justify random testing of private sector transportation employees, whose constitutional right to privacy is not diminished.

Second, supporters of random drug testing attempt to squeeze into the narrow administrative search exception set up to monitor closely regulated industries. While the court, in Shoemaker v. Handel, 795 F.2d 1136 (3d Cir. 1986), allowed the random testing of racing jockeys, it did so on the narrow grounds that the employees in the gambling industry, a closely regulated industry, were deemed to have consented to random testing upon entering the industry. In addition to gambling, the only other private industries which fall within this limited administrative search exception are the liquor and gun industries. Although many have tried to broaden this narrow exception, it has remained limited to these three industries. Hence, since the transportation industry is not within this exception, reliance on Shoemaker is misplaced.

Third, proponents of this Bill cite to McDonell v. Hunter, No. 85-1919, slip op. (8th Cir. Jan. 12, 1987) (available on LEXIS), wherein the court held that uniform random testing of prison guards who are in contact with prisoners on a day-to-day basis in medium or maximum security prisons was justified in light of the documented prevalence of drug use and trafficking in prison systems. On its face, it may seem that McDonell supports the Bill's proposed random drug testing. However, a careful analysis reveals that the situations are, in fact, dissimilar. There is no documented evidence that air pilots, flight attendants, rail operators, rail or air security screening contract personnel or any other class of employees covered under this Bill are heavy drug users or are involved in drug trafficking. Further, unlike McDonell, wherein the court allowed uniform random drug testing for a very narrowly defined group of prison guards, proponents of this Bill have broadly classified the group of employees to be tested, regardless of the degree of the group's impact on public safety. Lastly, proponents allege that the drug use statistics relating to truck drivers suffice as a basis for testing transportation employees. The fact that transportation operators carry passengers form, to a large degree, the public safety argument for requiring such testing. Since truck drivers do not carry any passengers, the weight of this statistical evidence is diluted. Consequently, full reliance on McDonell is also misplaced.

I cannot agree with the rationale that only those employees that are drug users would fear or find such testing repulsive. Instead, it is the interests of all employees, the straight and the drug users, that must be balanced. I do not believe that the government's interest in random testing is compelling enough to justify invading the privacy rights of all employees without reasonable suspicion. Based on the recent court decisions which have required reasonable suspicion prior to drug testing to protect the employees' constitutional right to privacy, it is highly questionable whether the proposed Bill will withstand constitutional scrutiny.

Funding it Relates to Inaccurate Test Results

There is no provision in the Bill which addresses the question of funding. This silence may create numerous problems. For example, gas chromatography-mass spectrometry, the most accurate testing devise, costs between $50-$100 per test. The second most accurate drug test, immunoassay, costs $5 per test. This large gap in cost is also evident in the degree of accuracy of these tests. In light of the substantial cost associated with the gas chromatography method, the $5 test is most often opted for. United Press International reported on August 26, 1984 that the military has administered approximately six million drug tests in the past two years which resulted in "tens of thousands of false positives which ... have 'wrecked' many military careers." (available on NEXIS). Even with the increasing technological advances aimed at curing laboratory inaccuracies, "false-positive reports of drugs like morphine, codeine, cannabinoids, phencyclidine, bezoylecgonine, secobarbital, and amphetamines continues to appear in distressingly large numbers." 256 Journal of the American Medical Association 3003 (Dec. 5, 1986). Consequently, the degree of inaccuracy associated with the $5 test could needlessly jeopardize the careers of many transportation employees.

Remedy for Aggrieved Employees

Also silent in the proposed legislation is a provision informing the employee of his/her right to relief if the privacy guarantees are violated. One particular area of concern is an employer's use of the additional medical information contained in one's blood or urine. These fluids reveal the existence of a history of venereal disease, epilepsy, and susceptibility to heart disease and strokes which may be used against an employee. Note, Drug Testing in the Workplace, 13 J. Legis. 269 (1986). While a provision exists to protect an employee's privacy regarding medical history, if no remedy is made available for the violation thereof, it is an empty protection. Additionally, this legislation does not set forth the procedures that an employee may follow if he/she desires to challenge the positive test result. It fails to even direct the Secretary to so promulgate.

U.S. Department
of Transportation
**Federal Railroad
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

SUMMARY OF POST-ACCIDENT TESTING EVENTS
(49 CFR Part 219, Subpart C)

February 10, 1986 thru January 15, 1987

Qualifying Events	175
Total Employees Sampled	759

Number of Sample Sets w/ Positive (Urine, Blood, or Both):

Alcohol	9 (1.2%)
Illicit Drugs (Marijuana, Cocaine, Methamphetamine)	29 (3.8%)
Other Controlled Substances - medically prescribed	14 (1.8%)
Total Controlled Substances	43 (5.7%)1/

NOTES:

1. Figures add. No sample sets were positive for both a licit controlled substance (C.S.) and an illicit C.S, or a C.S. and alcohol. Some sample sets were positive for more than one licit C.S. or more than one illict C.S., so the total number of positive findings is higher than displayed. All percentages do not add due to rounding.

2. FRA is reviewing all related information in connection with its informal safety inquiry on the first year of implementation of the alcohol/drug rule.

3. Data are not conclusive of alcohol/drug role in individual accidents, except as may be developed through an accident investigation. In some cases, drug levels are consistent with off-duty use. Other qualifying factors may apply. Data should therefore be treated with caution.

4. Approximately half of the urine samples were also tested for the presence of pheniramines (antihistamines present in many patent cold medications) as a part of a research effort to determine the effect of these substances on fitness. Of samples tested, 7% were positive. The FRA rule does not restrict use of pheniramines.

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Post-Accident Testing

Initiating Criteria and Events

(February 10, 1986 through January 15, 1987)

Train Accident with:	
Fatality	6
$500,000+	61
HM - Evacuation	21
HM - Injury	0
Impact - Injury	32
Impact Damage	36
	156
Train Incident with:	
Fatality	19
	19
Total	175

Post Accident Testing Events With Positive Test Results

(Alcohol and Illicit Drugs)
(February 10, 1986, through January 15, 1987)

Railroad	Date	Location	Type Accident	Position of Employee	Substance found and level (per ml)	Time of Accident	Time of Sample Collection
Chessie	3-23-86	N. Mountain, WV	Impact/ Inj.	Engineer	THC-COOH 4.7 ng (U)	6:55 p	2:05 a
Amtrak	4-21-86	Baltimore, MD	Impact/ Inj.	Brakeman	THC-COOH 154 ng (U)	1:55 p	7:30 p
BN	4-26-86	Galesburg, IL	Fatality (T.I.)	Roadmaster (Fatality)	Alcohol .034 (B & U)	9:00 p	12:00 M
UP	4-27-86	Crickett, AR	Fatality (T.I.)	Track Patrolman (Fatality)	Alcohol (.019 B, .136 U)	8:00 a	6:10 p
CNW	5-03-86	Des Moine, IA	Impact/ Inj.	Brakeman	THC-COOH 111 ng (U)	3:30 a	9:30 a
BN	5-03-86	Reno Jct., WY	$500,000+	Brakeman (1)	Benzo. 3.0 ug/ml (U)	5:10 p	12:35 a
				Brakeman (2)	Benzo. 3.0 ug/ml (U)	5:10 p	12:35 a
BN	6-01-86	Alliance, NE	$500,000+	Brakeman	Alcohol (.035 B, .022 U)	3:50 a	7:50 a
UP	6-15-86	Topeka, KS	$500,000+	Brakeman	THC-COOH 292.5 ng/ml (U)	11:40 p	6:40 a
SBD	6-20-86	Buckhead, GA	$500,000+	Brakeman	THC-COOH 55.5 ng (U)	3:45 p	7:35 p
SBD	6-27-86	Coleman, AL	$500,000+	Engineer	Cocaine 1.3 ug/ml (U) Benzo. 10 ug (U)	3:20 p	10:45 p
Metro North	6-30-86	White Plains, NY	Impact/ Dam.	Engineer	THC-COOH 290 ng (U)	7:27 p	11:20 p
CR	7-10-86	Elyria, OH	Fatality (T.I.)	Brakeman	THC-COOH 80 ng (U)	7:15 a	1:00 p

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(U) Urine level
(B) Whole blood level
(P) Plasma level
THC-COOH - Delta- 9 -tetrahydrocannabinol - 9 -carboxylic acid ("carboxy THC"), metabolite of marijuana
Benzo. - Benzoylecgonine, principal metabolite of cocaine
T. I. - Train Incident

Feb. 6, 1987

UP	7-10-86	North Platte, NE	Fatality	Dispatcher	THC-COOH 107 ng (U)	7:15 a	10:34 a
ATSF	7-10-86	Crescent, OK	Impact/ Dam.	Brakeman	THC-COOH 300 ng (U) Benzo. 5.3 ug (U)	8:55 a	12:00 p
KCS	7-17-86	Sulphur Sprgs., TX	Impact/ Inj.	Brakeman	THC-COOH 43 ng (U)	8:20 a	1:00 p
CR	7-21-86	Rome, NY	Fatality (T.I.)	Trackman (Fatality)	Alcohol (.034 B, .088 U)	9:00 a	
GTW	7-30-86	Haslett, MI	$500,000+	Brakeman	Benzo. 11.5 (U)	5:40 a	11:00 a
CR	8-27-86	Graham, OH	Impact/ Inj.	Conductor	THC-COOH 60 ng. (U)	3:20 a	6:10 a
GTW	8-28-86	Flint, MI	Impact/ Dam.	Fireman	Benzo. 10 ug. (U)	3:05 a	7:15 a
BRC	10-12-86	Chicago, IL	Impact/ Dam.	Conductor	Alcohol (.047 B, .127 U)	3:05 a	7:50 a
				Brakeman	Alcohol (.038 B, .000 U)	3:05 a	7:15 a
				Brakeman	Alcohol (.014 B, .035 U)	6:20 a	11:35 a
				Brakeman	THC-COOH 38 ng. (U) Benzo. 6 ug (U)	6:20 a	11:25 a
CR	10-19-86	Elkhart, IN	Impact/ Inj.	Retarder Operator	THC-COOH 96 ng. (U) Benzo. 25.3 ug (U)	6:20 a	9:35 a
				Brakeman	THC-COOH 50 ng (U)	4:25 a	7:30 a
MKT	11-5-86	Otterville, MO	$500,000+	Brakeman	THC-COOH 102 ng (U) Benzo. 35 ug (U)	3:25 a	8:50 a
ATSF	11-20-86	Portales, NM	Impact/ Dam.	Brakeman	THC-COOH 66 ng. (U)	1:20 a	6:30 a
UP	11-22-86	Portland, OR	HM/Evac.	Conductor (1)	THC-COOH 98 ng (U) Methamphetamine 2.3 ug (U)	1:45 a	5:45 a
				Conductor (2)	THC-COOH 232 ng (U)	1:45 a	8:00 a
BN	11-23-86	Columbus, MT	$500,000+	Conductor	Alcohol .007 (U)	5:20 p	2:15 a
UP	12-08-86	Cheyenne, WY	Impact/ Dam.	Brakeman	THC-COOH 51 ng (U)	10:50 a	1:15 a
SEPTA	12-10-86	Phila. PA	Impact/ Inj.	Engineer	Benzo. 2.6 ug (U)	5:30 p	7:45 p
				Ticket Col.(1)	Benzo. 1.5 ug (U) THC-COOH 92 ng (U): THC-COOH 32 (P)	5:30 p	8:20 p
				Ticket Col.(2)	THC-COOH 168 ng (U); THC-COOH 14 (P)	5:30 p	7:30 p

Amtrak/ CR	1-4-87	Chase, MD	Fatality	Engineer	THC-COOH 67 ng (U); THC-COOH 42 ng (P)	1:30 p	4:00 p
				Brakeman	THC-COOH 87 ng (U); THC-COOH 13 ng (P)	1:30 p	9:50 p
CSX	1-13-87	Ravenna, OH	Impact/ Dam.	Engineer	Alcohol .013 (B), .033 (U)	10:20 a	1:35 p

Senator **Grassley**. Thank you.
Mr. Upshaw.

STATEMENT OF GENE UPSHAW

Mr. **Upshaw**. I would like to submit my written testimony for the record. I am here on behalf of the National Football League Players Association; I am the executive director.

We are a little different than most industries that are dealing with this problem, in that professional football is an unregulated monopoly. We took a big leadership step in 1982 when we adopted our own chemical substance dependency program through collective bargaining.

I really believe, and my membership really believes, that the only way to handle this type of problem is that it must be collectively bargained. You need the cooperation and trust of both sides for any effective program to work.

What we have is management in some cases trying to take a leadership role and forcing unilateral changes down the workers' throats. That is something the workers of this country cannot accept. I cannot accept it and I cannot stand for anything or anyone that tries to do that. It must be a subject of collective bargaining.

I feel strongly about that. I am a member of the AFL-CIO Executive Committee and we have taken positions on random testing.

In the National Football League our position is very clear. We are opposed to random testing. We have seen the abuses that take place when random testing is used. I had one player last season, for instance, who did not hang out with the rest of the players after practice.

A lot of the players got together at a local pub and had a few beers and he did not show up there. The coach called him and decided that he probably had a drug problem because he did not drink with the rest of the players. [Laughter.]

So when that happened, the player was asked to come in before the coach. They felt that they wanted to test him under the reasonable cause provision of our collective bargaining agreement.

Once the player was confronted, he finally confided to the coach that the reason that he did not drink with the rest of the players was that he was taking piano lessons and he was afraid that they would laugh at him. [Laughter.]

So those are the types of abuses that can take place. We also had an incident of a player before a big game laughing on the elevator. The coach saw him laughing on the elevator and he said the guy is not serious; we want to test you for drugs; this is a big game.

Those are the types of things that we must protect against in any system that we come up with.

We felt strongly about drug use, and in 1982 it was not the headlines and it was not the sexy issue that it is today, but the problem is still there. We took a big step. Each player in the National Football League is tested each year when he reports to training camp as part of his preseason physical.

If the player shows positive during that test, he then must submit to random tests throughout the remainder of that season.

We also gave management the right to undertake reasonable-cause testing, but that determination should be made by experts.

When I heard Mr. Riley a minute ago mention reasonable cause testing and say they cannot really make the determination, well, the reason they cannot make the determination is that determination should be made by medical experts trained in the field to make that determination.

There is no easy answer to this problem. We can pass laws. We can do whatever we want, but until we are really willing to assume the responsibility of educating, rehabilitating and dealing with prevention, testing is not the only answer.

We all want a quick answer. We all want something that we can fill the headlines with that says we have now solved the drug problem because we all submit to testing. Well, I submit to the committee that when the Founding Fathers signed the Bill of Rights, they really understood what a police State was all about. Sure, they could not foresee drug testing and polygraphs and lie detector tests, but they fully understood the basic principles of individual liberty on which this country was founded.

I must say that in my profession and in any profession, I would hope that we would remember that a person is innocent until proven guilty and not the other way around.

Thank you.

[The statement follows:]

STATEMENT OF GENE UPSHAW
EXECUTIVE DIRECTOR
NFL PLAYERS ASSOCIATION

Mr. Chairman and Members of the Senate Judiciary Committee:

My name is Gene Upshaw. I am Executive Director of the NFL Players Association, the exclusive bargaining representative for players on all 28 NFL teams. The NFLPA is a member of the Federation of Professional Athletes, which I am proud to say is affiliated with the AFL-CIO. I also serve on the Executive Council of the AFL-CIO.

On behalf of the 1500 professional football players in the NFL whom the Players Association represents, I appreciate your invitation to appear today to discuss the very important issue of drug testing in the work place and the procedures we established in the NFL through collective bargaining to treat, care for, and eliminate chemical dependency problems of players.

At the outset, let me stress that the NFL Players Association and its members fully recognize the vital need to curb chemical substance abuse and misuse. We are aware of the devastating costs the drug problem poses today in terms of human tragedy (to individuals and their families), as well as the dollar cost to society in law enforcement, health care, injuries, and death. We have worked with the Drug Enforcement Administration to develop educational programs addressed at stopping chemical dependency, and our members participate in community service organizations around the country working in various activities directed at curbing drug abuse and misuse. We understand that the special attention bestowed on us as professional athletes affords us special opportunities to communicate with youth and we seek to use that special status in responsible ways.

Furthermore, as employees engaged in a physically demanding occupation, involving significant risks of physical injury, we also are particularly aware of the increased dangers that chemical substance abuse presents. For these and other reasons, we established a collectively-bargained procedure in 1982 to detect, educate, and treat players determined to be chemically dependent. I am proud to say that since 1982 our union has repeatedly sought to improve the educational, rehabilitation, and after-care aspects of our collectively-bargained drug program.

In brief, the program developed in the NFL through collective bargaining provides the following elements:

- detection of drug use by players;

- education of players determined to be chemically dependent;

- treatment of players determined to be chemically dependent;

- a central organization (unconnected with management or the union) to evaluate existing chemical dependency facilities used by teams; to provide education programs, to conduct reasonable-cause testing of players suspected of being chemically dependent; and to process medical bills for players treated so as to protect confidentiality of medical reports and the names of players.

We believe that urinalysis testing of players, and their treatment, rehabilitation, and education concerning chemical dependency are mandatory subjects of bargaining. We also believe that the success of any such program depends on trust and cooperation. In that regard, the collective bargaining process is a critical means of developing and securing the trust and cooperation under which such a program can be effective.

Our goal in the NFL Players Association has been to educate, test, treat, and rehabilitate. The fact that significant publicity surrounds professional athletics often leads management to try to impose a quick cure at the expense of individual rights or in disregard of the collective bargaining agreement. We have taken all necessary legal steps to assure that the terms and conditions of the collective bargaining are observed and enforced. Recently, two arbitration decisions sustained our collective bargaining agreement against such efforts by the Commissioner, who attempted to impose unscheduled drug tests without reasonable cause.

Our agreement provides for urinalysis testing at the pre-season physical and upon "reasonable cause" at the direction of the team physican. Our agreement prohibits random testing. The so-called augumented program proposed by Commissioner Rozelle directly conflicted with the program agreed to in collective bargaining. A successful program must be based on cooperation.

I am pleased that after lengthy hearings the arbitrators carefully deliberated the issues and sustained our view that the collective bargaining agreement defines the scope of permissible testing.

As we approach the serious problem of drug abuse and dependency in our society, we must recognize there are no overnight solutions. We need programs that include education, treatment, rehabilitation, and confidentiality. In particular, confidentiality assures that individual interests will be protected.

We also must be mindful that our form of government is based on certain fundamental values. We are a free society where government does not intrude in our lives without just cause;

where we are presumed innocent until proved guilty; and where we are protected by law from being forced to testify against ourselves. Recent court decisions in Florida, New Jersey, and New York have held that random testing of public employees violates the unreasonable search and seizure provisions of the Fourth Amendment. Unless such tests are part of an annual physical or based on "reasonable suspicion" or probable cause that an employee is using a controlled substance, such random testing is prohibited. City of Palm Bay v. Bauman, 475 So.2d 1322 (Fl. App. 5 Dist. 1985); Capua v. City of Plainfield, 643 F.Supp. 1507, 1513 (D. N.J. 1986); Patchogue-Medford Congress v. Board of Education, 505 N.Y.S.2d 888,891 (A.D. 2 Dept. 1986); Caruso v. Ward, 506 N.Y.S.2d 789,792 (Sup. 1986).

We need to reevaluate the reliability of urinalysis testing: some have claimed that such tests produce false positive rates of between 5% and 20%. Without proper and adequate safeguards, numbers of individuals could be falsely branded and their careers and lives ruined. We need to encourage cooperation with law enforcement authorities to help identify and convict drug dealers. We need to improve counselling, and after-care programs, and to strengthen our efforts to dissuade those who have not turned to drugs from becoming dependent on them. Government, labor, and management should bear all of these values and goals in mind when addressing the scourge of drug abuse. We must remain sensitive to individual concerns of privacy, the accuracy of drug testing, and the legality of the procedures adopted.

Mr. Chairman, our 1987 collective bargaining priorities include an improved drug and alcohol abuse prevention program. We do not agree with the owners that mandatory testing is the answer.

We believe that the best approach is through a comprehensive collectively bargained program that discourages drug use, helps those with drug abuse problems, and protects the rights of players. The comprehensive program we suggest includes an in-depth educational program, quality rehabilitation and after care, stiffer penalties for players who repeatedly fail drug tests, more "teeth" in reasonable cause testing, a $50,000 fine for any member of management who is guilty of a breach of confidentiality, and a career and financial counselling plan to help all players.

This concludes my written statement. I will be pleased to answer the Committee's questions. Thank you.

The CHAIRMAN. Keep proceeding the way in which you were. Thank you.

STATEMENT OF E.A. WEIHENMAYER

Mr. WEIHENMAYER. I am Ed Weihenmayer, the Director of Human Resources at Kidder, Peabody. Thank you for inviting me to share some information with you about Kidder, Peabody's drug prevention program. It is a comprehensive program which was introduced in late 1985.

We are an investment banking and brokerage firm. We have 7,000 employees spread out around 70 offices across the United States. To date, under this program, we have tested 2,500 new employees and 2,000 current employees out of a current headquarters staff of about 3,000 people.

I would like to inform you why we found it necessary to introduce that program, including the drug testing component, and to advise you of some of the special efforts that we have made to address employee concerns and sensitivities in its implementation.

The motivation for any program in business, it seems to me, has to be a valid business objective which relates to drug use. Transportation, we have already seen, has valid objectives, dealing with passenger safety and, in manufacturing, obviously with worker safety.

In financial services, we move billions of dollars around in hundreds of thousands of transactions and we have a legitimate interest in the safety and security of those assets.

It is really impossible for us, given the pace of the transactions, to test the product as it goes out the door. We ultimately have to rely on the honesty and integrity of our employees to manage and process all those funds in a professional way.

The real focus of drug prevention is not the visible drug user. No business is going to tolerate stoned employees any more than it will tolerate drunk employees. The real concern, as has been pointed out in earlier testimony, is the employee who uses drugs where the drug use is not visible.

In our industry, invisible drug use creates financial pressures which often lead to fraudulent activity.

Now, I am not sure on Wall Street that our incidence is any greater than the national incidence. In fact, our experience would show it to be much less, but drugs are very easily available in the Wall Street area.

You may have heard about a recent shooting last week that took place in Vietnam Memorial Park, close to our offices, when a drug dealer was shot simply trying to defend his turf for dealing.

The CHAIRMAN. I watched, when I was holding hearings on what later became known as the Sicilian connection, up in New York City.

Mr. WEIHENMAYER. I was walking down the street and I heard somebody yell "he has been shot." In New York City, I just kept walking, you know. [Laughter.]

The CHAIRMAN. That, I understand, but just to reinforce what you are saying, we did a series of undercover things and we found that at lunchtime a number of very, very expensively-clad Wall Street executives, women and men, were literally waiting in line at an apartment house, walking up, slipping their money through the door, and getting their coke. There was a line like going to a movie.

We just sat there and filmed it all, watched it all. So you are right; it is there.

Mr. **Weihenmayer**. Well, I am aware of firms, Mr. Chairman, that have screened off with high-wire screen open space which is their property because they were afraid of the liability if it became a festering drug scene.

Most responsible people, I feel, would agree that we are better off in a drug-free environment. Now, some critics suggest that we should test only for cause, but Kidder has decided that we are not going to wait for the fraud to happen any more than I hope an airline waits for an air collision before it starts testing its pilots.

When you step on a plane—we have heard this before—you expect a trained, sober and drug-free pilot at the helm, and I suppose that is important because your life is at stake. But when people place their assets with us, their life savings, I think they have a right to expect that they are going to have trained, sober and drug-free people managing and processing those assets.

Not surprisingly, customers have stretched this "expectation" to a belief that companies have an obligation to protect them against damage or injury resulting from negligence, and suits along these lines have been filed, some in the railroad industry.

I believe I am correct in saying that SEPTA, a Philadelphia commuter line, recently suffered an accident and they now have a suit from passengers that are claiming negligence because the rail line allowed engineers that tested positive for substance abuse to run the train.

There are going to be more suits of this sort and if companies are held accountable for the quality of our employees, I think we must be able to use tools which can help ensure that acceptable quality.

Now, at the end of 1985 Kidder, Peabody introduced a comprehensive drug prevention program. It is not just a testing program. It is one that involves considerable communications, many face-to-face meetings with employees—all of our new hires sign drug policy acknowledgements, which I have attached to my testimony—an employee assistance program, supervisory training, and drug testing.

To date, we have tested 2,500 new employees and 2,000 current employees, and testing is now being extended to 70 branch offices. Our objective is to strive for a drug-free environment.

While the teeth of drug testing is absolutely essential to accomplishing that objective, the most important aspect of the program is the employee assistance program component. This provides employees an opportunity, an outlet, for addressing any substance abuse on an absolutely confidential and, I might add, company-paid basis.

A key aspect to our program is that it tests unit by unit and from top to bottom. We do not describe our program as random testing because we choose the unit. A meeting is held one to two months before any testing takes place with the employees of that unit.

These sessions address policy issues, program objectives, the way we test and, most importantly, they serve as a forum to allow employees to raise any concerns which they have and to get responses to those concerns.

Because these sessions are held well in advance of testing, we have a chance to resolve problems before they may develop. I should mention that one very major producer in our firm, however, one of 500 employee owners, did refuse to take a test—this was about a year ago—but on the same day had conversations with me, with his boss and me, and ultimately with our CEO, who was finally able to persuade him to take the test——

The CHAIRMAN. I bet he was. [Laughter.]

Mr. WEIHENMAYER [continuing]. Rather than to throw away a long and very good career.

We have probably had 15 to 20 employees that have initially indicated that they would not take the test.

The CHAIRMAN. Do you announce a date for the test? When you have the meeting 2 months in advance, do you say on September 9th at 9 o'clock, we are going to conduct this test?

Mr. WEIHENMAYER. No, Mr. Chairman.

The CHAIRMAN. What do you say?

Mr. WEIHENMAYER. We simply say that you all will be tested within the next month or two months, so they are not aware of the date. But from those meetings, we have had 15 or 20 people that, in most cases, privately have said that they are really going to have trouble testing; that it is something they have a personal conflict with.

At that point, we have an opportunity to talk with them, and we have been pleasantly surprised and pleased that we have been able to persuade all but one to test in accordance with the program.

But this brings me to the integrity of our program. So far, and I hope forever, we apply every aspect of our program from top to bottom, to every employee, no exceptions. This has provided us tremendous strength in our communications with our employees.

We have talked today about the accuracy or inaccuracy of drug testing. The fact is that preliminary tests which most companies use are about 95 percent accurate. Now, that is not bad. In fact, in our business, at least part of which is picking stocks, that is a pretty good accuracy rate.

The CHAIRMAN. It would be a heck of a rate if that were a jury or a judge. It is awful bad for the 5 percent, though, is it not?

Mr. WEIHENMAYER. That is exactly right. The 5-percent error rate is very unacceptable when it relates to as important a decision as employment. So, consequently, we and all other responsible firms use gas chromatography/mass spectrometry—this was the test referred to earlier—to automatically confirm any positive from the preliminary test.

It is a highly scientific test and if proper attention is paid to prescription use and to the chain of custody, the test results will be extremely accurate. But since humans are involved in administering any test, you can never really say there will never be an error.

So the first step that we take, if there is a reconfirmed positive, is to go to that individual directly before anybody else is contacted and ask if there is an explanation, ask if there are any extenuating circumstances, before we begin the process of involving management in the resolution of the problem.

Now, if the employee does test positive and is a good performer and is prepared to commit to stopping any future use and will sign a statement to that effect, acknowledging also that he or she will be given repeated testing on an unannounced basis, not by unit but on an individual basis, then the employee is likely to be given a second opportunity. As far as I am concerned, this is just good business.

But if the employee tests positive on a re-test, termination is almost certain.

The CHAIRMAN. I am going to have to ask you to speed up your testimony, if I may.

Mr. WEIHENMAYER. I want to emphasize that our program is clearly not designed to catch people. Employees are provided repeat advance notices of testing and we do not fire automatically on a positive test. Our intent really is to create a climate where drug use is just not accepted as part of the working environment.

Now, Kidder does not stand alone in fighting drug abuse on Wall Street. Almost every Wall Street firm tests for drug use on a pre-employment basis and many today are considering testing of current employees. It is really just part of our overall security program which involves mandated fingerprinting, extensive background checks, et cetera.

We in the industry are in the process of endorsing a charter; let us call it an industry charter, called "Security Firms for a Drug-Free Workplace." We hope, once this process is completed, to distribute this charter to the campuses where we recruit.

I think one major contribution coming from this will be to influence our young people on the campuses not to use drugs by informing them that one very exciting industry does not want them if they are drug users.

Now, how can our Nation's legislators help? I think we can join together to——

The CHAIRMAN. I am really going to have to ask you to summarize in 60 seconds.

Mr. WEIHENMAYER. I would like to ask that we join together, to make sure that we have the tools to do what we need to do, which is to run an appropriate business.

Drug testing is controversial, but I think I am here today not because Kidder has the toughest program, but because our program has gotten visibility in that it represents a careful balance between business interests and employee sensitivities.

[The statement follows:]

Testimony

E.A. Weihenmayer

Vice President - Human Resources

Kidder, Peabody & Co. Incorporated

Thank you for inviting me to share information about Kidder, Peabody's comprehensive drug prevention program, which was introduced in late 1985. Kidder, Peabody is an investment banking and brokerage firm with 7,000 employees in 70 offices across the U.S. To date, we have tested 2,500 new hires and 2,000 current employees out of a New York headquarters population of 3,000. I'd like to inform you why Kidder found it necessary to introduce a drug prevention program, including a drug testing component, and to advise you of the special efforts we have made to address employee concerns and sensitivities in its implementation.

The appropriate motivation for any drug prevention program is a valid business objective which relates to employee drug use. Transportation companies are legitimately concerned about passenger safety. Manufacturing firms have a genuine interest in worker safety. Nuclear plant operators are hopefully concerned about the safety of surrounding neighborhoods. In financial services, we move billions of dollars around in tens of thousands of transactions daily and have a legitimate interest in the safety and security of those assets.

In our industry, the pace and complexity of transactions make it impossible to test the absolute quality of the "product" as it goes out the door. While we institute tight controls, we ultimately have to rely on the honesty and integrity of our employees to safeguard the financial assets which we manage and process. The real focus of drug prevention programs in the workplace is not the visible drug user. Certainly no business of any sort will put up with "stoned" employees any more than it would tolerate drunk employees. The real concern is the employee who uses drugs where the drug use is not visible. In some industries, this "invisible" use poses major safety risks, either for employees or customers. In the case of financial services, invisible drug use can create financial pressures which often lead to fraudulent activity.

Drug use on Wall Street may not be greater than the national incidence and, in fact, our experience shows it to be much less. But drugs are easily available to our New York employees. We can't seem to shut off the supply in the surrounding Wall Street area. You may have heard that a dealer was shot and killed just last week in broad daylight in Vietnam Memorial Park, close to our offices, in an apparent battle for drug sales turf.

Responsible people will agree we are better off in a drug free environment. Some critics suggest that we test only for cause, but Kidder has decided we are not going to wait for the fraud to happen, any more than I hope an airline waits for the mid air collision before it starts testing its pilots. When you step on a plane you expect a trained, sober, and drug-free pilot at the helm, because life is at stake. For those that place their financial assets with us, there is the same expectation that trained, sober, and drug-free people are managing and processing those assets.

Not surprisingly, many customers have stretched this expectation to a belief that companies have an obligation to protect their clients from any damage or injury which results from negligence. Suits along such lines have already been filed. For example, SEPTA - a Philadelphia commuter train line - recently suffered an accident which resulted in injuries to passengers. In accordance with Department of Transportation rules, the engineers were tested for substance abuse following the accident, and traces of drugs were found in their systems. Passengers brought suit against SEPTA for negligence. Certainly, if companies are to be held accountable for the quality of their employees, they must be able to use tools which can help to ensure that acceptable quality.

At the end of 1985, Kidder, Peabody introduced a comprehensive drug prevention program - not a testing program, but one involving considerable communications, many face-to-face meetings with employees, drug policy acknowledgements by all new hires (attached), Employee Assistance Programs, supervisory training, and drug testing. To date, we have drug screened 2,500 new hires plus 2,000 current employees out of a New York headquarters population of 3,000. Testing is now being extended to our 70 branch offices. Our objective is to strive for a drug-free work environment. While the teeth of drug testing is absolutely essential to accomplishing that objective, the most important aspect of the program is the Employee Assistance Program, which provides employees an outlet for addressing any substance abuse problems on an absolutely confidential and company paid basis.

A very key aspect of Kidder's drug prevention program is that it tests unit by unit and from top to bottom in the unit. A meeting is held with every group 1 - 2 months before the initial testing actually takes place. Such sessions address program objectives, policy issues, testing logistics but, most importantly, serve as a forum to surface problems and allow employees to express any reservations they have about the program. Because these sessions are held well in advance of testing, we have time to resolve most problems before any test is administered. I should mention, though, that one very major producer in the firm, one of our 500 employee owners, did refuse to take the test but on that same day had conversations with me, his boss and me, and ultimately with the CEO, who was able to persuade him to take the test, rather than throw away a long and successful career. While believing that his position was one clearly based on principle, we asked him how he could expect us to make an exception of him while testing 7,000 other employees. We have had 15-20 other employees initially indicate that they would not take the test, but extensive communication efforts have ultimately persuaded all but one to test in accordance with our program.

Which brings me to the integrity of our program. So far, and I hope forever, every aspect of our program is applied top to bottom, to every employee, no exceptions. This provides us tremendous strength in our communications.

The media talks and writes about the inaccuracy of drug testing. The fact is that the preliminary tests which most companies use are about 95% accurate. Now that's not bad. In fact, 95% accuracy is outstanding in our business, if you are picking stocks. But a 5% error rate is unacceptable when it relates to important employment decisions. Consequently, we and most other major firms use mass spectrometry/gas chromatography automatically to confirm every positive from a preliminary test. MSGC is highly scientific, so if proper attention is paid to prescription drug use and chain of custody, test results will be extremely accurate. However, since humans are involved, we never say there will never be an error. So the first step on a reconfirmed positive is to ask the individual tested for an explanation, ask if there are any extenuating circumstances, before we begin the process of involving management in any resolution.

If an employee does test positive and is a good performer, is prepared to commit to stopping use, will sign a statement to that effect, and acknowledge that he or she will repeatedly be retested on an unannounced basis, then the employee is likely to be given a second opportunity. But if the employee tests positive on retest, termination is almost certain.

I want to emphasize, though, that our program is clearly not designed to catch people. Employees are provided repeated advance notices of testing. And we don't fire automatically on a positive test. Instead, our intent is to create a climate where drug use is just not accepted as part of our working environment. I can assure you that maintaining positive employee relations in the midst of an implementation is a challenging experience. But if employees see their company demonstrating sensitivity and integrity, showing commitment to principle, and communicating effectively on a difficult issue, then the overall and ultimate impact on employee relations can be positive.

Kidder does not stand alone in its fight against drug use in the workplace. In fact, almost every major Wall Street firm now tests for drug use on a pre-employment basis, and may have or are considering programs which test current employees - all as part of overall security programs, which include NYSE mandated fingerprinting, extensive background checks, and rather stringent access requirements into controlled areas. A number of these firms are in the process of endorsing an industry charter (attached) we have called "Security Firms for a Drug Free Workplace." These endorsees tentatively plan to distribute the charter to the campuses where we recruit. I view this as a major contribution to constructively influencing our young people not to use drugs, by informing them in advance that one very exciting industry does not want them if they are drug users.

How can our Nation's legislators help? How can we join together to do the right thing by both our businesses and our employees? Simply by making sure that business has the tools to do the job we need to do, specifically to preserve and, in fact, clarify, a right to test. While drug testing is controversial, Kidder's program hopefully demonstrates that vital business needs can be addressed while still remaining very sensitive to employee concerns. I'd like to think that Kidder's program has gotten the publicity which brought me here today, not because it is the toughest program, but because it represents a careful balance between business objectives and employee sensitivities.

Kidder, Peabody & Co.
Incorporated

Drug Policy

The illegal use of drugs in this country is on the rise, both socially and in the workplace. Like most firms in our industry, Kidder, Peabody has a priority interest in providing the highest quality service to our many clients and in safeguarding their assets. Kidder has, therefore, taken certain steps that are intended to benefit the firm, our employees and our clients.

The first step is to ensure that all employees clearly understand the company's policy regarding illegal drug use:

> **"Possessing, using, purchasing, distributing, selling, or having controlled substances in your system without medical authorization during the work day, on the firm's premises or while conducting company business is inconsistent with the firm's business interests and will be grounds for disciplinary action, up to and including immediate termination."**

The firm reserves the right to take appropriate steps to ensure compliance with this policy, including the testing of its employees.

The second step entails a mandatory drug screen for all new hires in New York and in certain branches. This will be handled directly by Human Resources on a confidential basis as part of the employment process.

Please acknowledge your understanding of Kidder, Peabody's policy and your acceptance of these conditions of employment by signing below.

____
Name (print)

____
Date

____
Signature

Kidder, Peabody & Co.
Incorporated

Securities Firms For A Drug Free Workplace

The presence of illegal drugs in the workplace and the influence of them on employees is wholly incompatible with our industry's business operations, health and well being of our employees, responsibilities to our customers, and reputation in the marketplace. Consequently, reflecting these concerns, we the undersigned pledge to:

- Implement comprehensive drug prevention programs which strive to achieve drug-free workplaces.
- Recognize that drug users may need assistance in overcoming their problems and may offer employees with drug problems the opportunity for rehabilitation.
- Distribute written drug policies to all employees, explaining the need to eliminate drug use in the workplace and the individual consequences of such use.
- Require all new hires to sign policy acknowledgements.
- Where permitted by law, test **all** new hires for illegal drugs.
- Provide Employee Assistance Programs for employees to address drug problems on a confidential basis.
- Train managers to recognize and address drug-related performance problems.
- Communicate with employees about drug policies, Employee Assistance Programs, and program objectives - on an ongoing basis.
- Educate our recruiting sources and the community as to the industry position on drug use.

We further pledge to implement each of these provisions as quickly as our individual circumstances allow and, in addition, to work toward programs which will ensure our **current** employee populations remain drug-free.

Date

Signature

Title

Firm

The CHAIRMAN. Thank you very much.

Mr. Durham, welcome.

STATEMENT OF R.V. DURHAM

Mr. DURHAM. Good afternoon, Mr. Chairman. I am R.V. Durham, Director of Safety and Health for the International Brotherhood of Teamsters, and I would like to present an abbreviated statement if you would permit the entire statement to be a part of the record.

The CHAIRMAN. Your entire statement will be placed in the record.

Mr. DURHAM. OK.

I appreciate the opportunity to appear here today on behalf of our General President, Mr. Presser, to discuss the role of drug testing in curbing substance abuse in the trucking industry and the role that collective bargaining plays in trying to see to it that this is carried out with a maximum of respect for individual rights and maximum protection against wrongly accusing a person or unfairly jeopardizing their career.

We in the Teamsters Union know that abuse of alcohol and drugs is a major problem in American society today. As an important, socially-responsible American labor union, we feel that we clearly have a role to play in the battle against substance abuse, and we are playing an active role in education, rehabilitation and testing.

We are especially proud of the educational program launched last year by our general president which uses the various communication resources available to the Teamsters Union to educate our members and their families and the general public, and we shared some of that material with the committee.

A Teamster driver is a much better, more careful driver than your average motorist. Some of the best evidence comes when you have an accident between a car and a truck driver. The car driver is at fault more often than the truck driver; in many studies, it shows upwards of three times to one.

That is not the impression you might get from media coverage of some highly publicized truck crashes, but those are the facts. Most Teamster drivers have to take a DOT physical two years. They can be disqualified for a lot of conditions that people in other jobs can continue to work with, such as diabetes, heart disease, high blood pressure, hearing loss, et cetera.

They are also disqualified if they use any illegal drugs. For people like commercial truck drivers, we support periodic drug testing for substance abuse as part of their periodic overall physical examination. This is the main thrust of the drug and alcohol testing provisions that we have negotiated into our National Master Freight Agreement.

We have long argued, and our own survey shows, that the incidence of drug abuse among Teamster truck drivers is much lower than what the media's portrayal and the public's perception of truck drivers suggest and, in fact, dramatically lower among the motoring public in general.

A survey we conducted of Teamster local unions involved in the administration of the National Master Freight Agreement reveals that less than one-quarter of one percent of the employees tested positive for drugs and alcohol.

The National Master Freight Agreement provides for testing in two contexts, where there is probable suspicion and during the Department of Transportation's recurrent physicals.

By restricting testing to these situations, individual employees are protected from being tested in an arbitrary or discriminatory fashion. The National Master Freight Agreement program mandates strict chain of possession requirements to guard against having a sample tampered with or adulterated in any way.

In addition, in the event of an initial positive test, state-of-the-art tests are required to ensure that no employee is disciplined on the basis of a false positive test. We use the GC–MS confirmation screening that has already been discussed.

A critical part of any drug testing program is something else that has already been discussed, and that is the establishment of a rigorous program for approving laboratories to perform these tests.

It is a mistake to assume that any medical laboratory that advertises drug testing services can perform with the level of competence necessary. In order for a program to be successful, the covered employees must have confidence in the laboratories doing the testing.

Our process is so selective that after about 3 years of dealing with our program, of those laboratories applying, and there have been a number of them, only seven have been approved to do either the urine screening test in conjunction with the DOT physical examinations or the blood tests for probable suspicion of on-the-job impairment.

Only two of these labs have been approved for both kinds of testing.

The problem of laboratory accuracy received national attention just last week with the controversy over the drug test on the Conrail crew involved in the fatal crash in Chase, MD.

We do not have all the details yet, but from available reports it looks like the DOT's primary drug lab made devastating mistakes in conducting and reporting those tests. In reviewing the Federal Register in recent days, I understand that they have now changed to a laboratory in Salt Lake City.

We believe the federal government has an obligation to establish a proficiency testing network for laboratories to assure good quality control, especially if the federal government mandates widespread drug testing of workers in the transportation industry.

We also believe that only federal minimum standards for accuracy and quality control can prevent potential abuses and ensure employer and employee confidence in the accuracy of test results. The International Brotherhood of Teamsters strongly urges Congress to enact this type of legislation.

Many employers in a wide variety of industries are introducing drug test programs in various forms. Frankly, many of these employer-introduced programs do not adequately protect workers from having these programs administered in an arbitrary or discriminatory way.

Many do not have adequate safeguards to protect workers from being disciplined unfairly. Many do not do enough to ensure the accuracy of the lab tests. In view of these problems, the union is the worker's only real defense. We have to bargain on these issues to protect the interests of our members.

In fact, in a number of cases Teamster locals and other unions have had to go to court or to the National Labor Relations Board to force the employer to bargain on these issues.

One area in which we have been successful is convincing our employers that random testing and other forms of arbitrary testing are not the solutions to substance abuse problems in the workplace.

Random testing is a wholly unreasonable and unjustifiable intrusion on an individual's right to privacy. I might add that we believe that government-mandated random testing presents some very serious constitutional questions as well.

The Teamsters Union remains unalterably opposed to any type of random testing for drugs or alcohol. Now, Mr. Bunte, to my left, president of Trucking Management, Incorporated, the largest management organization of unionized carriers, will convey his organization's views on random testing.

I have been authorized to tell you that the Motor Carrier Labor Advisory Council, the other large unionized management group representing 142 companies, shares the Teamsters' view of random drug testing.

We believe that probable suspicion and recurrent testing provide an adequate deterrent in preventing substance abuse in the workplace.

Mr. Chairman, to try to finish up here, I have talked a lot about the National Master Freight Agreement. We are proud of some of the things we have been able to accomplish with it.

However, like any other labor agreement, it is a product of a lot of give-and-take and compromise, and like any other collective bargaining agreement, we hope to make improvements when we sit down again to negotiate a new contract next year.

Finally, Mr. Chairman, I just want to say that it is well known that there are a lot of safety problems in this trucking industry. They have been getting steadily worse since deregulation.

However, there has yet to be a conclusive study demonstrating that substance abuse is a problem in the transportation industry or has aggravated the safety problems. Many of the existing safety problems in the trucking industry were caused by the unrestricted entry into the business of almost anybody who can raise the down payment on a used truck.

Where the employer and the driver are the same person, it defies logic to believe that random or, for that matter, any form of testing will have any effect on substance abuse. The Secretary of Transportation acknowledged the problems this raises for the implementation of any federally mandated drug testing program in the trucking industry in her recent testimony before the Senate Commerce Committee.

The CHAIRMAN. What percentage of truckers are in that situation where they are their own employer?

Mr. DURHAM. Unfortunately, the government or no one else seems to have a specific number, but it ranges in the 150,000 to 250,000 range, I think, is a pretty good ballpark guess. Mr. Bunte may want to add his thoughts on that.

To wind up here, Mr. Chairman, congressionally mandated random drug testing will do little more than place another unnecessary burden on those employers and employees where there is already a program in place.

We appreciate the opportunity to come before you this afternoon and discuss our views on this important subject, and I will be more than glad to answer any questions you might have.

[The statement follows:]

STATEMENT

OF

JACKIE PRESSER, GENERAL PRESIDENT

INTERNATIONAL BROTHERHOOD OF TEAMSTERS

Good Morning. My name is R.V. Durham. I am Director of Safety and Health for the International Brotherhood of Teamsters. I appreciate the opportunity to appear here today on behalf of our General President Jackie Presser to discuss the role of drug testing in curbing substance abuse in the trucking industry, and the role that collective bargaining plays in trying to see to it that this is carried out with a maximum of respect for individual rights, and maximum protection against wrongly accusing a person or unfairly jeopardizing their career.

We in the Teamsters Union know that abuse of alcohol and drugs is a major problem in American society today. As an important, socially responsible American labor union, we feel that we clearly have a role to play in the battle against substance abuse.

And we are playing an active role: In education, rehabilitation, and testing. We are especially proud of the educational program launched last year by General President Jackie Presser, which uses the various communication resources available to the Teamsters Union to educate our members and their families, as well as the general public, about these dangers.

Mr. Chairman, I would like to preface my remarks about drug testing by giving you a little of the context in which this has come about in the trucking industry.

It is important to recognize that your typical Teamster driver is a highly skilled, experienced driver, working in a very demanding job. He (or she) is responsible for operating a vehicle that may weigh 80,000 pounds, may be loaded with hazardous material, over roads that may be crowded with other vehicles, in all kinds of weather conditions.

A Teamster driver is a much better, more careful driver than your average motorist. Some of the best evidence of this comes when you have an accident between a car and a truck: The car driver is at fault more often than the truck driver. That is not the impression you might get from media coverage of some highly publicized truck crashes. But those are the facts.

Because the job is so demanding, a Teamster driver has to be in better physical and medical shape than your average worker in another occupation. To make sure they are, most Teamster drivers have to take a DOT physical exam every two years. They can be disqualified for a lot of conditions that people in other jobs can continue to work with: diabetes, heart disease, high blood pressure, hearing loss. They are also disqualified if they use any illegal drugs.

It is against this background that the Teamsters Union has become involved in the issue of drug testing in the trucking industry.

For people like commercial truck drivers, we support periodic testing for substance abuse as part of their periodic overall physical examinations. This is the main thrust of the drug and alcohol testing provisions that we negotiated into the National Master Freight Agreement in 1985. A copy of that contract language is attached to my statement. In addition, we have furnished copies of our Drug & Alcohol Abuse Program.

Mr. Arthur Bunte, President of Trucking Management, Inc., who is appearing with me today, has some very interesting data on the results of these DOT physical drug tests. We have long argued - and our own survey shows - that the incidence of drug abuse among Teamster truck drivers is much lower than what the media's portrayal and the public's perception of truck drivers suggests - and, in fact, dramatically lower than among the motoring public in general. A survey we conducted of Teamster Local Unions involved in the administration of the National Master Freight Agreement reveals that less than one quarter of one percent of these employees tested positive for drugs and alcohol. I understand that Trucking Management, Inc. has also undertaken a similar study, and I urge you to discuss with Mr. Bunte TMI's findings because they are the best data available on drug use among professional truck drivers. All drug and alcohol tests conducted under the NMFA are at the employers' expense. Thus, Mr. Bunte may also be able to share with you some idea of the costs of such a program. Generally, an initial immunoassay test with a gas chromatography/mass spectrometry confirmation test will cost between $50 - $100.

As I said, we negotiated some very specific contract language on drug testing, when confronted with employers' requests that employees submit to any number of tests, some without confirmatory tests or chain-of-custody protection.

The NMFA thus provides for testing in two contexts: where there is probable suspicion; and during Department of Transportation recurrent physicals. Under our collective bargaining agreement, probable suspicion is defined as follows:

"Probable suspicion means suspicion based on specific personal observations that the Employer representative can describe concerning the appearance, behavior, speech or breath odor of the employee. Suspicion is not probable and thus not a basis for testing if it is based solely on third party observation and reports."

By restricting testing to such situations, and in conjunction with DOT physicals, individual employees are protected from being tested in an arbitrary or discriminatory fashion.

For either type of testing, the NMFA program mandates strict chain-of-possession requirements to guard against having a sample tampered with or adulterated in any way.

In addition, in the event of an initial positive test, state-of-the-art tests are required to insure that no employee is disciplined on the basis of a false-positive test. By doing this, we virtually eliminated the possibility that a person's test would show up positive because he took a certain over-the-counter medicine, or because of some other situation like those you may have read about in the media.

A critical part of the NMFA program, and of any drug testing program, is the establishment of a rigorous program for approving laboratories to perform these tests. It is false to assume that any medical laboratory that advertises drug testing services can perform with the level of competence necessary. In order for a program to be successful, the covered employees must have confidence in the laboratories doing the testing. It is our belief that the laboratories used for testing under the NMFA provide the high degree of expertise required.

The laboratory approval process for the National Master Freight Agreement is so selective that, after about three years, of those laboratories applying, only seven have been approved to do either the urine screening tests in conjunction with DOT physical exams, or the blood tests for probable suspicion of on-the-job impairment. Only two of these labs have been approved for both kinds of testing. The problem of laboratory accuracy received national attention just last week with the controversy over the drug tests on the Conrail crew involved in the fatal crash in Chase, Maryland.

We do not have all the details yet, but from available reports, it looks like the Department of Transportation's primary drug test lab made devastating mistakes in conducting and reporting those tests.

In addition, the problem was highlighted a few weeks ago when a Washington, D.C., television station sent spiked urine samples to seven Washington area laboratories. The laboratories reported false negatives for 82% of the samples.

We believe the Federal government has an obligation to establish a proficiency testing network for laboratories to ensure good quality control, especially if the Federal government mandates widespread drug testing of workers in the transportation industries. Right now, the laboratories involved under the National Master Freight Agreement participate in a proficiency testing program run by the State of Pennsylvania, which is the only state-run proficiency program currently in place. While other states are considering proficiency programs for such labs, we believe that only federal minimum standards for accuracy and quality control can prevent potential abuses and insure employer and employee confidence in the accuracy of test results. The International Brotherhood of Teamsters strongly urges Congress to enact this type of legislation.

Many employers, in a wide variety of industries, are introducing drug test programs in various forms. Frankly, many of these employer-introduced programs don't adequately protect workers from having these programs administered in an arbitrary or discriminatory way. Many don't have adequate safeguards to protect workers from being disciplined unfairly. Most don't do enough to ensure the accuracy of the lab tests. In view of these problems, the union is the workers' only real defense: We have to bargain on these issues to protect the interests of our members. In fact, in a number of cases, Teamsters Locals and other unions have had to go to the courts or to the NLRB to force employers to bargain on these issues.

One area in which we have been successful is in convincing employers that random testing and other forms of arbitrary testing are not the solutions to substance abuse problems in the workplace. Random testing is a wholly unreasonable and unjustifiable intrusion on an individual's right to privacy. I might add that we believe that government-mandated random testing -- as is being contemplated by some in the Congress -- is unconstitutional. The Teamsters Union remains unalterably opposed to any type of random testing for drugs or alcohol.

Another approach to testing that we also view as arbitrary is blanket post-accident testing. We support post-accident testing when the investigating police officer has reason to believe that a driver of any kind of vehicle -- car or truck -- may be under the influence of drugs or alcohol. In fact, we believe that police in every state already have this authority.

But, as I said before, in the majority of accidents, the truck driver is not at fault. Thus blanket post-accident testing is arbitrary. It constitutes a random test based on being in the wrong place at the wrong time, and we are opposed to it. We believe that probable suspicion and recurrent testing provides an adequate deterrent in preventing substance abuse in the workplace, and that current studies being undertaken in the meat packing industry will demonstrate that.

Mr. Chairman, I've talked a lot today about the National Master Freight Agreement. We are proud of some of things we have been able to accomplish with it.

However, like any other labor agreement, it is the product of a lot of give-and-take and compromise. And like any other collective bargaining agreement, we hope to make improvements when we sit down again to negotiate a new contract. A skilled, experienced employee is a valuable asset to the employer. And the Teamsters Union feels very strongly that we want to protect the interests of all of our members. Rehabilitation should be the primary goal of any workplace program to combat drug abuse. This serves the best interests of all concerned: the worker, his or her family, the employer, the union, and society.

We built an incentive and opportunity for rehabilitation into the National Master Freight Agreement language in 1985. However, experience has shown that few substance abusers will voluntarily enter such programs. Accordingly, I believe that the right of an employee to enter an employee assistance program after his first positive test result is an area we are going to want to re-visit when we sit down to negotiate a new agreement in a few months.

Finally, Mr. Chairman, I just want to say that it is well-known that there are a lot of safety problems in this industry. They have been getting steadily worse since deregulation. However, there has yet to be a conclusive study demonstrating that substance abuse is a problem in the transportation industry, or has aggravated existing safety problems.

Many of the existing safety problems in the trucking industry were caused by the unrestricted entry into the business of almost anybody who can raise the down payment on a used truck. Where the employer and the driver are the same person, it defies logic to believe that random, or for that matter any form of testing, will have any effect on substance abuse. Moreover, the Secretary of Transportation acknowledged the problems this raises for the implementation of any federally-mandated drug testing program in the trucking industry in her recent testimony before the Senate Commerce Committee. Thus, Congressionally-mandated random drug testing will do little more than place another unnecessary burden on those employers and employees where there is already a program in place.

We appreciate the opportunity you have given us, Mr. Chairman, to discuss our views on this very important subject.

I will be happy to answer any questions you may have.

Thank you.

CONTRACT LANGUAGE

Article 35, Section 3

Alcohol and Drug Use

(a) Drug Intoxication

The decision of the National Grievance Committee relating to illegal drug induced intoxication is hereby incorporated by reference in this Agreement. Refusal of the employee to participate in the testing procedure provided therein shall constitute a presumption of drug intoxication and shall constitute the basis of discharge without the receipt of a prior warning letter.

(b) Leave of Absence—Alcohol and Drug Use

An employee shall be permitted to take a leave of absence for the purpose of undergoing treatment pursuant to an approved program of alcoholism or drug use. The leave of absence must be requested prior to the commission of any act subject to disciplinary action.

The Employer shall give between thirty (30) and sixty (60) days prior written notice to an employee of the Employer's intention to request a test for drug use during a DOT physical examination. The employee may, within five (5) days of receipt of such written notice, make written request for a leave of absence.

Such leaves of absence shall be granted on a one-time basis and shall be for a maximum of sixty (60) days unless extended by mutual agreement. While on such leave, the employee shall not receive any of the benefits provided by this Agreement or Supplements thereto except continued accrual of seniority, nor does this provision amend or alter the disciplinary provisions.

(c) Return from Leave of Absence—Testing

Employees requesting to return to work from a leave of absence for drug use shall be required to be tested by the procedure adopted by the National Grievance Committee. Failure to take the test or to meet the standards adopted by the National Grievance Committee shall be cause for discharge without a prior warning letter.

(d) The provisions of this Section shall not apply to probationary employees.

The CHAIRMAN. Thank you.
Mr. Bunte.

STATEMENT OF ARTHUR H. BUNTE, JR.

Mr. BUNTE. My name is Art Bunte and I am president of Trucking Management, Inc., and I welcome this opportunity to testify before the committee on drug testing.

I am submitting this statement on behalf of TMI, the national collective bargaining representative of a significant sector of the organized motor carrier industry. TMI negotiates and administers the National Master Freight Agreement on behalf of its members throughout the entire United States.

TMI member companies employ approximately 100,000 Teamsters who are currently working under the National Master Freight Agreement. TMI member companies represent a diverse cross-section of the industry, from the largest to the smallest companies in the industry. Some member companies employ under five employees, while others employ over 10,000 employees.

Beginning with the first National Master Freight Agreement in 1964, TMI and the Teamsters have incorporated language into the agreement to address substance abuse problems. The primary concern in the early years was the consumption of alcohol.

As the use of drugs became more apparent in the early 1980's, we jointly recognized that the provisions of the agreement were inadequate to address the continuing growth of drug abuse in American society, and particularly in our industry.

Rather than sit idly by and allow this potential problem to begin to affect the labor-management arena, we jointly took a positive approach to drug abuse and established a joint program of drug and alcohol abuse that we have put into effect in August of 1984.

The National Master Freight Agreement drug testing program contains two different categories of testing. The first is probable suspicion testing. It covers all situations in which an employee is acting in an abnormal manner and the employer has probable suspicion to believe that the employee is under the influence of a controlled substance and/or alcohol. The employer may require the employee to go to a medical clinic to provide both urine and blood specimens for laboratory testing.

The second is the DOT recurrent or other regular physical examination testing. It covers all physical examinations which are required by the Department of Transportation and by company physical examination requirements.

In these examinations, the employer can require the employee to provide a urine specimen for a drug screen, provided he has given the employee a written notice 30 calendar days prior to the administration of the test.

In the event of a positive test under either probable suspicion or DOT recurrent exams, the program provides for immediate discharge. There are no second bites at the apple under our program. We are intent on eliminating alcohol and/or drug abuse by employees covered by the National Master Freight Agreement, and our program does exactly that.

We do provide for a leave of absence for the purpose of undergoing treatment pursuant to an approved program of alcoholism or drug use. The leave of absence must be requested by the employee prior to the commission of any act subject to disciplinary action.

I want to emphasize that we did not adopt a drug abuse program without careful consideration of laboratory requirements and laboratory testing methodologies. We retained expert toxicologists to advise us throughout the establishment of the testing methodology and laboratory requirements, and it is without peer in the labor-management environment.

The program requires that a laboratory has to be approved before it can be used by any company under the contract. This makes sure that all laboratories can perform all of the required testing procedures.

The laboratory testing methodology requires three different tests of the urine specimens. The urine specimen is first analyzed using the immunochemical assay and then high-performance, thin-layer chromatography. If these two tests result in a positive finding, the specimen is then subjected to the final confirmation test using a state-of-the-art gas chromatography/mass spectrometry confirmation and quantitation. It is required that all blood specimens are analyzed through the GC-MS process.

On the contrary, if any of the individual tests show negative, the results are reported as negative. We are convinced that careful adherence to the state-of-the-art testing methodology eliminates the risk of false positive results.

We are, however, not satisfied that just being able to perform all of the required testing procedures gives us the quality of work from the laboratories that we think is necessary.

We are currently jointly working on a quality control program for all approved laboratories under our program. We intend to have it in place in the near future to ensure that every approved laboratory under the National Master Freight Agreement strictly adheres to the laboratory requirements and testing methodology set forth in the program. This will go a long way to eliminate any potential errors in the administration of the program.

We have adopted and set forth a chain of possession procedure which governs the manner in which specimens are taken for both types of testing. The procedure ensures the individual, through sealing, labeling and initialing of the specimens, that test results of the laboratory are those of the individual being tested.

We also mandate the specifications of the drug testing kits to make sure they are of a forensically acceptable quality. In short, we are proud of the drug and alcohol abuse program set forth in the National Master Freight Agreement.

I particularly want to point out to the committee the important and responsible role of the Teamsters Union, and in particular their general president, Jackie Presser, director of safety and health, R.V. Durham, and national director of freight, Jack Yager, in recognizing this potential problem at an early date, intelligently addressing it in a joint labor-management arena, and cooperatively working out a program which has worked.

This program, along with many other safety and equipment-related programs that TMI has negotiated into our agreement with the Teamsters is, in large part, responsible for the safety record of our carriers and over 100,000-plus employees.

In regard to the statistics, for over 2 billion highway miles traveled in 1986 by our member companies, of our over-the-road drivers tested for drug abuse in 1986, less than one-half of one percent tested positive.

Of more than 25,000 over-the-road drivers, less than two-tenths of one percent were implicated in alcohol or drug-related incidents on the highways.

I do not believe that any of us know how large of a problem we have with drug and alcohol abuse on the nation's highways as a whole. We do know there is a problem and it has to be corrected. That is why we feel it is essential that Congress pass legislation that will require the Secretary of Transportation to establish programs and procedures which will solve the problem.

Based on our experience since 1984, there is no question that a sound drug testing program is a deterrent and a reasonable solution to drug abuse by employees. Having said that, I would like to make a few comments regarding random drug testing which is included in the Senate Commerce Committee bill.

We do not agree with the random drug testing provision contained in Section 5 of the bill, which requires each company to conduct random testing of its commercial motor vehicle drivers.

The random testing issue was addressed by TMI and the Teamsters during the establishment of our program. We are convinced that random testing by individual companies is difficult to define and impractical to administer. We are concerned that it may destabilize labor-management relations and detract from the positive aspects of our current program by creating an atmosphere characterized by allegations of witch hunts and discrimination against particular drivers, notwithstanding the anti-discrimination provisions contained in the legislation.

Moreover, we do not know how a company could, practically and at reasonable cost, engage in random testing of their commercial motor vehicle operators on the highway.

Random drug testing by the individual companies does not in any way help solve the problem. The thousands of new entrants, owner-operators, and/or independent contractors are certainly not going to perform a self drug test, and, if positive, then take themselves off the highways.

The one area of random drug testing which should help solve the problem is addressed in Section 6 of the bill, that being State and federally administered random drug testing of all commercial motor vehicle operators on the highways. I believe this approach of a 1-year pilot program is an excellent way to see if it is a workable solution.

Thank you, and I will try to answer any questions.

[The statement follows:]

TESTIMONY OF
ARTHUR H. BUNTE, JR.
PRESIDENT, TRUCKING MANAGEMENT, INC.

I. INTRODUCTION

I am Arthur H. Bunte, Jr., President of Trucking Management, Inc. (TMI). I welcome this opportunity to testify before the Committee on the Judiciary regarding drug testing.

I am submitting this statement on behalf of TMI, the national collective bargaining representative of a significant sector of the organized motor carrier industry. TMI negotiates and administers the National Master Freight Agreement (NMFA) and its more than 31 Supplements on behalf of its 42 member companies throughout the entire United States.

The following are some important facts about TMI and the companies it represents:

(a) TMI's 42 member companies generate approximately 60 percent of the revenues of all Class I and II motor common carriers of general freight;

(b) TMI member companies employ approximately 100,000 Teamsters who are currently working under the NMFA;

(c) TMI member companies represent a diverse cross section of the industry from the largest to the smallest sized companies in the industry, some member companies employ under 5 employees while others employ over 10,000 employees;

(d) All TMI member companies are organized by the International Brotherhood of Teamsters (Teamsters) and belong to Trucking Management, Inc. because TMI serves as their multi-employer collective bargaining representative in labor negotiations with the Teamsters.

II. The NMFA Drug and Alcohol Abuse Program

Beginning with the first National Master Freight Agreement in 1964, TMI and the Teamsters have incorporated language in the Agreement to address substance abuse problems. The primary concern in the early years was the consumption of alcohol. As the use of drugs became more apparent in the early 1980's, we jointly recognized that the provisions of the Agreement were inadequate to address the continuing growth of drug abuse in American society and particularly in our industry.

Rather than sit idly by and allow this potential problem to begin to affect the labor/management arena, we jointly took a positive approach to drug abuse and established a joint program of drug and alcohol abuse in August, 1984.

The NMFA drug testing program contains two different categories of testing:

1. Probable suspicion testing - covers situations in which an employee is acting in an abnormal manner and the employer has "probable suspicion" to believe that the employee is under the influence of a controlled substance and/or alcohol. The employer may require the employee to go to a medical clinic to provide both urine and blood specimens for laboratory testing. Probable suspicion means suspicion based on specific personal observations that the employer can describe concerning the appearance, behavior, speech or breath odor of the employee.

2. DOT recurrent or other regular physical examination testing - covers all physical examinations whether required by the Department of Transportation requirements or by company physical examination requirements. In these examinations, the

employer can require the employee to provide a urine specimen for a drug screen provided he has given the employee a written notice 30 calendar days prior to the administration of the test.

In the event of a positive test under either probable suspicion or DOT recurrent exams, the program provides for immediate discharge. There are no second bites at the apple under our program. We are intent on eliminating alcohol and/or drug use by employees covered by the National Master Freight Agreement and our program does exactly that.

We do provide for a leave of absence for the purpose of undergoing treatment pursuant to an approved program of alcoholism or drug use. The leave of absence must be requested by the employee prior to the commission of any act subject to disciplinary action.

I want to emphasize that we did not adopt a drug abuse program without careful consideration of laboratory requirements and laboratory testing methodologies. We retained expert toxicologists to advise us throughout the establishment of the testing methodology and laboratory requirements, and it is without peer in the labor/management environment. The program requires that a laboratory has to be approved before it can be used by any company under the contract. This makes sure that all laboratories can perform all of the required testing procedures.

The laboratory testing methodology requires three different tests of the urine specimens. A urine specimen is first analyzed using immuno-chemical assay and then high performance thin layer chromatography. If these two tests result in a positive finding, the specimen is then subjected to a final confirmation test using a state-of-the-art gas chromatography/ mass spectrometry confirmation and quantitation. It is required that all blood specimens are analyzed by gas chromatography/mass spectrometry. On the contrary, if any of the individual tests show negative, the results are reported as negative. We are convinced that careful adherence to these state-of-the-art testing methodologies eliminates the risk of false positive results.

We are, however, not satisfied that just being able to perform all the required testing procedures gives us the quality of work from the laboratories that we think is necessary. We are currently working on a quality control program for all approved laboratories under the NMFA program. We intend to have it in place in the near future to ensure that every approved laboratory under the NMFA program strictly adheres to the laboratory requirements and testing methodology set forth in the program. This will go a long way to eliminate any potential for errors in the administration of the program.

We have adopted and set forth a chain of possession procedures which governs the manner in which specimens are taken for both types of testing. The procedure ensures the individual through sealing, labelling and initialling of the specimens that test results by the laboratory are those of the individual being tested. We also mandate the specifications of the drug testing kits to make sure they are of a forensically acceptable quality.

In short, we are proud of the Drug and Alcohol Abuse Program set forth in the NMFA. I particularly want to point out to the Committee the important and responsible role of the Teamsters Union and in particular their General President, Jackie Presser; Director of Safety and Health, R. V. Durham; and National Director of Freight, Jack Yager in recognizing this potential problem at an early date, intelligently addressing it in a joint labor/ management arena and cooperatively working out a program which has worked. The Teamsters Union is in the forefront of the effort to eliminate drug and alcohol abuse by commercial motor vehicle operators on the nation's highways and unfortunately has been criticized for their stand by others in organized labor.

This program, along with many other safety and equipment related programs that TMI has negotiated into our agreement with the Teamsters is, in large part, responsible for the safety record of our 42 carriers and 100,000 plus employees. In this regard, statistics for over two billion highway miles travelled during 1986 by TMI member companies reveal some interesting facts:

(1) of our over-the-road drivers tested for drug abuse in 1986, less than one-half of one percent tested positive;

(2) of more than 25,000 over-the-road drivers, less than two-tenths of one percent were implicated in alcohol or drug-related incidents on the highways;

(3) in over 5 million trips, less than one-tenth of one percent of our over-the-road drivers were found to be in violation of Department of Transportation hours of service regulations;

(4) of over 150,000 vehicle units on the road, less than two-tenths of one percent were taken off the road for equipment safety inspection failure.

III. Need for Legislation to Solve Real Problem

I do not believe that any of us know how large of a problem we have with drug and alcohol abuse on the Nation's highways as a whole. We do know there is a problem and it has to be corrected. That is why we feel it is essential that Congress pass legislation that will require the Secretary of Transportation to establish programs and procedures which will solve the problem.

Based on our experience since 1984, there is no question that a sound drug testing program is a deterrent and a reasonable solution to drug abuse by employees.

Having said that, I would like to make a few comments regarding random drug testing which is included in the Senate Commerce Committee bill.

> We do not agree with the random drug testing provision contained in Section 5 of the bill which requires each company to conduct random testing of its commercial motor vehicle drivers. The random testing issue was addressed by TMI and the Teamsters during the establishment of our drug abuse program. We are convinced that random testing by the individual companies is difficult to define and impractical to administer. We are concerned that it may destabilize labor/management relations and detract from the positive aspects of our current program by creating an atmosphere characterized by allegations of witch hunts and discrimination against particular drivers, notwithstanding the anti-discrimination provision contained in the legislation. Moreover, we do not know how a company could, practically and at reasonable cost, engage in random testing of their commercial motor vehicle operators on the highway.
>
> Random drug testing by the individual companies does not in any way help solve the problem. The thousands of new entrants, owner-operators, and/or independent contractors are certainly not going to perform a self drug test; and, if positive, then take themselves off the highways.
>
> The one area of random drug testing which should help solve the problem is addressed in Section 6 of the

bill and that being State and Federally administered random drug testing of all commercial motor vehicle operators on the highway. I believe the approach of a one year pilot program is an excellent way to see if it is a workable solution.

We have one final concern about how the Congress or the Department of Transportation defines positive test levels under the legislation. In our program, we have been especially careful to obtain expert toxicological assistance in setting testing levels at a standard which ensures against positive findings caused by passive inhalation, but nonetheless captures active use of drugs. If the levels in federal legislation or agency guidelines are set too high, we would be in a position of having a mandated program which will allow individuals operating vehicles on the highway who are engaged in active use of drugs that are now subject to discharge under our program.

I thank you for the opportunity to participate in the work of this Committee today. I will be happy to try and answer any questions and to provide any additional information that might be helpful to the Committee.

The CHAIRMAN. Thank you very much.

I apologize for my being the only one here. There is a bit of contention on the floor right now, and I am literally going to recess only for 3 minutes. If the panel will stay, I have questions for each of you, but I have a call from the floor to find out whether I am supposed to go to the floor.

Can you hold just a minute and we will take 3 minutes? Just be in your seats and I will be right back.

[Recess.]

The CHAIRMAN. Thank you very much for that courtesy. I have some questions, if I may. I would like to start with Mr. Mann.

Mr. Mann, were you here to hear the testimony of Mr. Riley?

Mr. MANN. I was, Mr. Chairman.

The CHAIRMAN. What is your opinion of Operation Red Block?

Mr. MANN. Operation Red Block, in the view of rail labor, is an excellent program, Senator. It is in effect, covering approximately 50 percent of the workers now, and it is a program which builds in prevention, rehabilitation, and education.

It has been shown on the railroads that have the program in effect, that the incidence of accidents, incidence of missing work, and other categories that would relate to drug or alcohol problems have been reduced significantly. That is the way we feel this program should work. Give us a chance to get the program into effect all over the country, with proper staffing, and we feel that we could eradicate completely any alleged problem of alcohol and drug abuse.

The CHAIRMAN. Mr. Mann, tell me who you represent.

Mr. MANN. I represent all of the rail workers, Mr. Chairman.

The CHAIRMAN. And who are the rail workers, what unions?

Mr. MANN. United Transportation Union, the Brotherhood of Locomotive Engineers, the Brotherhood of Railway Carmen; etc., there are 18 unions, Senator.

The CHAIRMAN. And you represent all of them?

Mr. MANN. All of the crafts of rail workers in the country.

The CHAIRMAN. And you speak for them all?

Mr. MANN. I speak for all of them in this matter, Senator.

Senator, I want to point out something that I forgot to mention, which I think you need to be aware. Mr. Riley obviously is an articulate attorney because he can take both sides of the issue. Earlier last year, he opposed random testing. Now, he has changed his position.

The reason he has stated he has changed it is that you cannot recognize the symptoms visually. However, his rule requires only 3 hours of training of supervisory people to detect someone under the influence.

Later you will hear from some technical personnel who will be witnesses. Please ask them if they think that is enough training for anyone to recognize that kind of symptom.

The CHAIRMAN. His rule under which proposal?

Mr. MANN. The testing rule that has been in effect for a year.

The CHAIRMAN. Yes.

Mr. MANN. By comparison the Los Angeles Police Department, however, has a training program which is very significant. The Secretary of Transportation highly recommended the procedure that is used there.

First, what they do is check blood pressure, the eyes, the pupils, and a number of other physiological symptoms. In addition to that, they check the psycho-motor type reflexes, walking a straight line, touching the nose with one's eyes closed, that kind of thing.

If any of those symptoms indicate something going awry, they will then analyze it, without either blood or urine tests.

The CHAIRMAN. Would your folks object to that?

Mr. MANN. No, Senator, we would not object to that. We do object to random testing, however.

The CHAIRMAN. You object to random testing for the presence of drugs, but would you object to random testing along the lines you have just described, someone calling you in, checking your eyes, your blood pressure, your walking a straight line?

Mr. MANN. We would not, Senator, because in our view that builds in the requisite probable cause under the fourth amendment.

The CHAIRMAN. OK.

Mr. MANN. If, at that point, it appears as if someone is under the influence, we would have no objection to urine or blood tests.

The CHAIRMAN. I understand that. I appreciate that it is a very important distinction. I want to make sure for the record, because I do not want you to be misunderstood, nor do I wish to misunderstand you. I think I understood it clearly the first time; I just wanted to repeat it.

Mr. MANN. With one other caveat, Senator—the person who is going to do the detecting must have adequate training, not 3 hours, as Mr. Riley has suggested.

The CHAIRMAN. Now, one last question. Do you support the notion that has been suggested here that there is a Federal certification of some type necessary for the laboratories that ultimately do the testing if it gets to the point under your scenario that one is warranted?

Mr. MANN. We think it is an absolute necessity, Senator, because at the present we have mom-and-pop labs testing all over the country of rail workers. They are not supervised, and monitored.

The federally mandated testing is only at one laboratory. However, we have a whole host of issues and situations where the rail employees are tested without any monitoring at all by any agency.

The CHAIRMAN. One last question. What is the single biggest, if you can name one, objection you have to the Commerce Committee legislation?

Mr. MANN. The random provision, Senator, in our view, is unconstitutional. As it relates to the rail industry, it not only mandates punitive actions against an employee on duty, but off duty as well.

So if you recognize the way that marijuana, for example, is metabolized in your body, it can stay in your system up to a couple of months. As far as the Federal Railroad Administration is concerned and the impact of the proposed legislation, one could be fired for having any amount in the body.

The CHAIRMAN. How about for employment purposes at the outset?

Mr. MANN. Pre-employment, we have no objection, Senator.

The CHAIRMAN. Now, let me ask you for the record, what is the constitutional distinction between someone who has smoked marijuana a month before they applied for a test and they take the test and marijuana shows up in the testing and they are denied the job because they had residual in their system, and someone who is on the job and is tested while having smoked it off the job?

Mr. MANN. Well, Senator, at the stage of pre-employment there is an election. This potential employee is not required to work for a railroad. That is a pre-condition that he be tested.

We do not have a problem with that. We do not want anyone out there using alcohol or drugs, but once you are employed, the railroad should not retroactively impose a condition on the worker, particularly if it is unconstitutional.

The CHAIRMAN. The reason I am asking you so many questions is not merely because I ride Amtrak everyday. [Laughter.]

And every one of the conductors asks me these questions. If you think I am kidding, I am not. It is a major concern among your people.

Mr. MANN. It is an extremely big problem.

The CHAIRMAN. How would you feel about a pre-employment condition that said that part of the contract for being hired was to submit in the future to random testing?

Mr. MANN. We would oppose it.

The CHAIRMAN. And, again, the rationale?

Mr. MANN. The rationale is you are wrongfully assuming someone is using alcohol or drugs on the job without showing any signs of reasonable suspicion.

The CHAIRMAN. Well, you have no reasonable suspicion when you ask them to take the test prior to the job.

Mr. MANN. No, you do not, that is correct. However, at that point prior to the job, it is a free consent, and that free consent, I think, is the key to the constitutionality issue.

The CHAIRMAN. I will not belabor the point.

Mr. Upshaw, all the rest of these gentlemen testifying here today are testifying in favor, as you are, of some means by which we can begin to deal with this problem, but it seems to me there is a distinction among them that distinguishes your organization among them, and that is that three of people represent crafts that if, in fact, they are not in control of themselves find themselves not in control of significant pieces of machinery.

You are a big man, but you are not a truck. Football players are significant and powerful figures, but they are not a railroad train. You damage yourself or someone across the line from you; you do not do harm or cause injury to people in the stands, as happens with these folks, nor do you necessarily, unless they are gambling illegally, take their money.

I am being serious. It is an important point for me, anyway. There is a rationale for testing of some kind that seems to supersede the requirement that would require rationale for testing in your business, or the business that you represent, one that I aspired to be part of, but never made the grade, so I decided I might as well run for President. [Laughter.]

Mr. UPSHAW. Do you need a running mate?

The **Chairman**. But all kidding aside, I am being serious. I should not kid about it.

Mr. **Upshaw**. You might need a running mate. [Laughter.]

The **Chairman**. That is right; I would like it.

My question is, Gene, why is it important that testing be conducted among athletes?

Mr. **Upshaw**. Well, we recognize that even though we do not, you know, drive trucks, maybe after playing football a player might want to enter that industry. We are concerned with what happens to reputations.

We are entertainers, but on the other hand we also recognize our status in the community. We recognize that people look up to us. We are role models; if we like it or not, we are cast into that role.

So we have addressed the issue in our sport through collective bargaining. I still feel, regardless of whether we are talking about the railroad industry, the airline pilots, truckers or football players, it should be a matter of collective bargaining.

I think that is where you really work out the problems. The two sides sit down and discuss their industry because they know their industry better than you or me or anyone else. They are the ones who should discuss it. For any successful program to work, you are going to need cooperation from both sides.

I heard one of the questions you raised to Mr. Mann about pre-employment testing. What concerns me and what I see happening in our country is that they want us to overhaul our whole workforce on one simple test.

I do not think I would let a doctor operate on me with one simple test. I would definitely want a second opinion; I would definitely want to make sure that he is using the right criteria and he is making the right determination.

I feel that by random testing they are asking us to overhaul the whole workforce with one simple test, and that is not the answer. It has to be determined by medical experts. It takes time, it takes energy. Three weeks is not enough and I am not sure 3 years is enough, but it is an ongoing fight.

The **Chairman**. I appreciate your answer. I think it is a responsible position, but I do want to make the point that it seems to me there are different burdens that industries carry with them.

Obviously, you can seek in pre-employment contracts different conditions if someone is going to receive Q clearance and top secret security clearance relating to the conduct and control of our nuclear weapons, and it works its way down.

I think one of the important things we have to wrestle with here, those of us in the U.S. Senate dealing with this, and this committee, is to what degree are those distinctions reasonable from a legal standpoint and what constitutional rights do we have and how much can we by way of passing laws impact upon what is otherwise something considered as a freedom of action on the part of employees.

Let me ask you, Mr. Weihenmayer, you at Kidder, Peabody have a pre-employment testing program. What has been the percentage, if you know and if you are at liberty to say, of those who have sought employment, submitted themselves to the pre-employment testing program, and have been rejected on the basis of the tests?

Mr. **Weihenmayer**. Mr. Chairman, I really am not at liberty to release a number which is considered very confidential information. I can tell you, though, that we use a number of factors to determine whether we employ someone.

I mean, we institute background checks, credit checks. We are very concerned about quality of employee that we hire. A drug test is just one component of that, and so it rarely—I am not going to say never—but it rarely comes down to that being the issue, yes or no.

The **Chairman**. Have you ever hired anybody who tested positive?

Mr. **Weihenmayer**. Yes, we have, sir, and when we do that, the individual signs something that basically says I have tested positive; I understand that on a go-forward basis I am not going to be able to use drugs in the future; I understand that the company is going to test me frequently on an individual and unannounced basis and I am prepared to sign this policy to that effect.

The **Chairman**. Does it make a difference to your company, if the test is positive, what drug it tests positive for?

Mr. **Weihenmayer**. It is of some importance to us. Really, our concern, again, is invisible drug use, and the reason is because we are concerned about fraudulent activity. There are too many frauds that we have come upon where we find that drug use has been at the bottom of the financial pressures which caused somebody to do that.

The **Chairman**. Do you know how much your drug testing program costs per test?

Mr. **Weihenmayer**. Yes. Our preliminary tests cost $17 or $18. Our reconfirmation costs $55 or $60, in that range. Obviously, the more tests we conduct, the lower the rates may be.

But I should say, too, that while we spend perhaps $100,000-plus on direct drug testing costs, by far the greater cost is the time that we take to communicate with our employees about the policy and the program itself.

The **Chairman**. What do your lawyers tell you are the potential liabilities for you if, in fact, you conclude wrongly that someone has tested positively while under your employ and you fire them?

Mr. **Weihenmayer**. Actually, we have not had such an occurrence, because when we have an employee that tests positive on a reconfirmation, we go directly to that employee and we say, you tested positive; is there an explanation?

Now, in only 3 cases out of the 2,000 that I have talked about with current employees—in only three has this become an issue. In one case, an individual had been in the dentist's chair a couple of nights before and there was a trace of what looked like heroin in the system. It was morphine derivative, for medical use.

In another case, someone had forgotten about a heart medication that was a once-a-month type of prescription. In the third case, we did have an administrative foulup. But in all cases, when an employee says "not me, could not be," we work to substantiate what the employee has told us, and in all cases we have been able to come to an agreement as to whether there are or are not drugs in that person's system.

The **Chairman**. You obviously think your program is successful. What do you think is the key to the success of your testing program?

Mr. **Weihenmayer**. First, we are not trying to catch anybody. We really are trying to move toward a drug-free environment. We are not trying to run a 100-yard dash. We are in a long race; we are in a marathon.

Second, we have a meeting with the unit prior to testing. Now, they have been given adequate communications and notice and we do not need it from a legal standpoint, if we needed any notice to begin with, anyway. But it is extremely important from a communications standpoint.

The **Chairman**. What do you think would happen if you had a random testing program?

Mr. **Weihenmayer**. Well, we would not.

The **Chairman**. I know that, but what do you think the impact upon labor-management relations would be on your employees, your labor-management relations? What do you think it would be?

Mr. **Weihenmayer**. I am afraid that "random" suggests unfair. Even when we pick a unit to test, the unit asks, how about that other unit? Now, I think what would happen is it would become divisive. How come I am picked and you are not? So this is the problem that we have.

Going unit by unit, we say we are testing this unit top to bottom, no exceptions, and we really eliminate almost all that sort of infighting because of that.

The **Chairman**. Do you not also by that eliminate, or at least go a long way in eliminating the idea of the ability to be able to harass?

Mr. **Weihenmayer**. I think we certainly take a long stride in that direction.

The **Chairman**. One of the things that I want to point out about the random testing, as I see it, is that when I look at it, the people whom I have spoken to and consulted on this and the folks out there generally, I think, think that random testing is fine as long as it is some truck driver or organized labor union or some football player.

But if you walked into a white-collar unit of college graduates at Kidder, Peabody or the DuPont Company or wherever else and said, by the way, it is random, I think as a matter of principle you might find that a lot of people who do not even think in terms of organized labor would begin to wonder whether or not this may be a device by which they could be harassed.

I compliment you on your program, what I know of it and what you have said here, particularly the way in which you go at on a unit basis because it seems to me that one of the biggest problems with the random testing is what was testified by both of your colleagues sitting at the end of the bench there. I do not know how it would work with labor-management relations. I mean, I just think it would be a very dangerous precedent.

Well, would any of you like to make a closing comment, Mr. Bunte or Mr. Durham? I have no questions because you answered my questions as you were speaking.

Mr. **Bunte**. Well, I have the cost, if you are interested.

The **Chairman**. I am, yes.

Mr. **Bunte**. Our basic urine test is $21.50. That includes the kit because we mandate the type, and that is if it is negative. Now, if it is positive, it is an additional $50, so that is basically it.

The **Chairman**. Mr. Durham?

Mr. **Durham**. Mr. Chairman, I would just like to commend you on the hearing, and I think you have got a very good grasp of the overall problem and we appreciate the opportunity to be here and present our views.

The **Chairman**. I actually do have one question of you, Mr. Durham. What about the idea of, if it became a matter of Federal policy—I know of no one who has suggested this, but attached to the highway bill that there be random testing of over-the-road drivers without cause—roadblocks like they do now for sobriety tests in the State of Delaware and other States where at 1:30 in the morning there is a roadblock and the policeman stands there and shines a light in your eyes.

Mr. **Durham**. Well, I think the major difference there, Mr. Chairman, is that we have no problem with the roadblocks as they are conducted now with alcohol because there is a way that they can immediately determine if there is probable suspicion. If they find that, then they are arrested and removed off the highway.

What is perceived as the testing program, as I understand it, is they would test the individuals at the roadside. The driver would continue to proceed on down the highway and then the results would come in several days later. So it is just not a feasible way to get at the problem.

We feel that the best way is in the pre-employment screening and the periodical and the reasonable suspicion type testing. The problem that we need to address, and no one seems to have a clear answer to it, is the people that the industry cannot speak for and we cannot speak for.

They basically are the people who are the employer and the employee, one and the same. A way possibly to address that is for the Secretary of Transportation to establish certified physicians, so that the person would have to go to a DOT-certified physician and be tested. Then I think we could pull them into the system.

The **Chairman**. Thank you.

Sir, did you have a closing comment?

Mr. **Weihenmayer**. Well, I was going to say, Mr. Chairman, the concern that I feel in listening to people here is that when you have scheduled tests, assuming you have smart employees, you can obviously manage your intake around the scheduled test. That is obvious to everyone and I think that is a problem that has to be overcome in some sort of way.

Now, we overcome it by it being unannounced within the unit. We recognize on a pre-employment basis that it is kind of scheduled. It is not really scheduled, but they know when they are going to start.

But on the unit-by-unit rotation, it is unannounced and that is a very important aspect of our program.

The **Chairman**. Gene?

Mr. **Upshaw**. I face that all the time, I mean, with our players being tested at the beginning of each training camp. But the way that I look at the issue it has to be that you cannot just decide we are going to have one test this month and then say that is it until the next time we decide to test.

It is an ongoing project. It is not something that you can do today and then wait 6 months and do again. It takes time for this process to work, and that is why the reasonable-cause test is definitely a constructive approach. You cannot just do the one test and say that is it and we will see you next month and forget about the problem, because employees are able to get around the test. It has to be an ongoing program that has prevention, education and rehabilitation.

The CHAIRMAN. Well, there would be a way, would there not, because we are talking about a smaller universe? I do not intend to be any part of the collective bargaining process, but it seems to me that theoretically if the question is whether or not there is cause, it would not be all that much of a cost for the owners to provide a well-trained physician in the locker room before every game, walking along, looking and testing.

What do you have? Your roster is 35, 25?

Mr. UPSHAW. Forty-five.

The CHAIRMAN. Forty-five. If it had been 75, I might have had a chance. [Laughter.]

Mr. UPSHAW. We pushed for that.

The CHAIRMAN. Did you, really? [Laughter.]

I did not mean to push for 75. [Laughter.]

Seriously, has that been broached, the subject of—in other words, it seems to me you are all saying essentially the same thing. One, the random testing has impacts upon labor-management relations that none of you are anxious to see happen.

Two, it raises constitutional questions. Three, the issue is when there is probable cause—no one argues that—it is warranted to test. But four is how do you determine when there is probable cause. You need someone of some consequence who understands the area, but the question is how do you do that? How do you have someone available?

Now, have you all in your league, if it is appropriate to tell me, talked about the prospect of identifying someone who is medically capable of establishing whether or not there is probable cause to make judgments, or has the railroad industry concluded that in the locker room before these folks get on the train that there be hired on, you know, a physician observing people leaving or testing them?

Mr. UPSHAW. We have approached that, but we have met resistance. The resistance comes from the NFL's answer that it has to be random tests and that is the only answer.

The CHAIRMAN. Well, that seems like recalcitrant resistance.

Mr. UPSHAW. I know, but that is the type of industry I am dealing with, and it also gets to who is the guy that they catch. I mean, they catch who they want to catch, too. I mean, that is another issue.

The CHAIRMAN. I think in your business that is——

Mr. UPSHAW. Of course.

The CHAIRMAN. I am serious. I think that probably might be true.

I have to vote, but Mr. Mann, if you have a closing comment.

Mr. MANN. Senator, I just want you to seriously consider any kind of support for a random bill because if there is random testing, eventually you are just going to kill the collective bargaining process and Operation Red Block. Those systems will just go by the wayside.

The CHAIRMAN. I think you make a very strong point. I have made no final judgment on it. We are going to hear from the next panel of medical witnesses, technical and scientific witnesses. I thank all of you for coming. I truly appreciate your input.

Before the next panel, and you are welcome to come to the table, I have a vote. I have 6 minutes to make it. I will vote and be back and we will conclude the hearing. I will recess for 10 minutes while I go vote.

[Recess.]

The CHAIRMAN. Dr. Miike, Dr. Schuster and Dr. Morgan, and I see we have two more people at the table. Unless I counted incorrectly, who are the other two folks?

Dr. SCHUSTER. I am accompanied, sir, by Dr. Michael Walsh, the director of our Office of Workplace Initiatives, and Dr. Richard Hawks, who is the chief of the Technology Branch, Division of Preclinical Research, to answer all of the technical questions for me.

The CHAIRMAN. You are very welcome. The reason I bother to ask is I had said prior to this last vote that we had one more panel and my staff had apoplexy, and those of you who are on the second panel probably did, also. We will have one more panel of an additional three witnesses. So I want to assure the last three witnesses that we have not forgotten them.

I ask each of you gentlemen who have been called to testify to please do so in the order I have called you, and let me ask you if you could, in the interests of time, because I think this is, quite bluntly, one of the most important portions of this whole process, what you all have to say—I would like you to try to keep your opening comments between 5 and 10 minutes so we can begin to have some dialogue on this, if I may.

Doctor, why do you not begin?

STATEMENTS OF A PANEL CONSISTING OF LAWRENCE MIIKE, SENIOR ASSOCIATE, HEALTH PROGRAM, OFFICE OF TECHNOLOGY ASSESSMENT; CHARLES R. SCHUSTER, DIRECTOR, NATIONAL INSTITUTE ON DRUG ABUSE, ACCOMPANIED BY MICHAEL WALSH, DIRECTOR, OFFICE OF WORKPLACE INITIATIVES; RICHARD HAWKS, CHIEF, RESEARCH TECHNOLOGY BRANCH; AND JOHN P. MORGAN, DIRECTOR OF PHARMACOLOGY, SCHOOL OF MEDICINE, CITY UNIVERSITY OF NEW YORK

Dr. MIIKE. Okay.

The CHAIRMAN. Did I pronounce your name correctly?

Dr. MIIKE. Anything close, I accept, but it is called Miike.

The CHAIRMAN. Miike.

Dr. MIIKE. Every vowel is pronounced.

The CHAIRMAN. I apologize, Dr. Miike.

Dr. MIIKE. Oh, that is all right. I wanted to thank you for the break because I made it down to your urine collection facilities down the hall. [Laughter.]

The CHAIRMAN. Did a Capitol policeman escort you in?

Dr. MIIKE. It had no blue water, so I felt pretty safe. [Laughter.]

I have submitted my prolonged statement for the record which goes into a lot of detail about the tests, the cutoff points, how accurate they are, and issues like that.

Let me simply say that in terms of the screening tests and the confirmatory tests, you have heard what they generally are. They develop antibodies against the drugs and by different means they do the screening tests.

Once they do that, the confirmatory test really looks for a specific thing, and really the confirmatory test puts on blinders and looks for a specific drug. So once you do the screening, you are only going to look for that particular drug.

I want to make some clarifications on some things that I heard by prior witnesses just to get the record straight. When we are talking about how accurate and reliable these tests are, you cannot use a simple statement like they are 95 percent accurate. You have got to talk about how sensitive they are and how specific they are, and I think the representative from Kidder, Peabody was really referring to how sensitive these tests are.

When he says they are 95 percent accurate, what he means by that is if you get 100 positive urines, the test within its detection limitations, will pick up 95, so you will miss 5. That is a separate question from identifying urines falsely, and that is the specificity issue.

So I give in my testimony some examples of, given a test of a certain specificity and sensitivity, what the predictive value of a positive screen is when applied to populations that have different prevalences of drug use.

For example, the example I used was if you take a population that has 10 percent drug users——

The CHAIRMAN. When you say a population, define what you mean.

Dr. MIIKE. Okay. Let us say we are going to test the federal workforce, okay?

The CHAIRMAN. Okay.

Dr. MIIKE. And just for illustrative purposes, let us say that 10 percent of them at any one time have drugs in their urine, and let us take another example like a methadone clinic population and we are going to test them and let us make believe that maybe 50 percent of them have drugs in their urine.

I give an example in there that shows that when a test is 95 percent sensitive, meaning it picks up 95 positives out of 100, and 90 percent specific, meaning that on the initial screening it would identify falsely 10 percent of people as having drugs in their urine, the predictive value of a positive test of the screen is only 51 percent in the 10-percent user population, but 90 percent in the 50-percent user population.

So when you talk about how good these screening tests are, you have to put it in the context of the population that you are testing. I just wanted to set that straight.

Some other things to talk about are the costs of these tests and how reliable they are. I think the cost estimates that you heard are generally true. Most testing companies will give you a price for a panel of tests.

For example, I use $15 for a screening test, for about five or six tests, and an average of about $40 for confirmatory tests. Now, if you are a company official and you want to be real cost-effective on this, you can use my little example to negotiate with the companies.

Now, typically, companies will say, look, we will give you a set price all across the board, $23 for a whole panel and all the confirmatory tests. If I were a company representative, I would do that in the Federal population because the Federal worker population average age is 42, and I would guess that the incidence is probably under 5 percent of anybody having drugs in their urine. So I would come off real great if I gave you a set price.

But if I tried to do that in a methadone clinic population where I know a whole lot of them are going to be positive and I am going to have to do a whole lot of confirmatory tests, then I would say, look, let me give you a set price for the screening test, but I am going to charge you individually for the confirmatory tests.

One company in the D.C. area, for example, does for about $20 a panel of about 12 drugs with the confirmatory test, except they say we will not include the price of marijuana for that; we will charge you $50 apiece on the marijuana because most of the positives will be marijuana. So a smart business executive knows what to do and how to deal with these companies.

I have already told you my example of what we mean by accuracy versus predictive value, so let me just sort of conclude at this point in time by telling you what my personal conclusions and concerns are in this area.

In my testimony, my prepared testimony, I show you the variation in what kinds of drugs are currently tested among federal agencies that test, and also in the proposed testing program in the federal government they will be required to test for marijuana and cocaine, and left up to the individual agencies on whatever else they want to test.

In terms of equity, I think that it is important that so much flexibility not be given. In other words, it is going to depend on which agency you are in, which raises the question of whether people are going to get treated equally.

So one consideration if you institute a testing program is to consider whether uniformly certain kinds of drugs should be tested and who should make that kind of a decision.

Second, I heard the labor representative say, at least one of them say that he was not concerned about the pre-employment testing area. I think he says that because he speaks for his constituency. Nobody speaks for people applying for jobs in an organized sense.

It is in the pre-employment screening area where employers will feel pressured to cut costs and only do screening tests without the confirmatory testing. You have heard the predictive value argument, so that another area to consider is that in the pre-employment screening area, if that is allowed, to seriously consider whether, if you are going to be allowed to do that, then you had better do some confirmatory testing at the same time.

In my testimony in Attachment 3, I give you a California bill that is presently before that legislature that tries to address that issue.

My third point is that if you are going to do a testing program, how cost effective is it to do a random testing program, given the different drug use rates among different populations?

For example, I gave you my example of a methadone clinic population versus the federal employee population, and one can come to their own conclusions about whether it is cost effective to test in those kinds of varying populations.

If the decision is to be made to test, the examples that I give you are really based on ideal situations, those predictive value kinds of situations. You have read in the papers, and I think some of you might have seen Channel 7's series on drug testing, that when it comes to practical applications in the lab, the numbers that I give you are far superior to what is actually going on.

Other people can talk about open testing programs; in other words, testing situations where the persons know they are being tested to see whether they are doing it right. They still have significant error rates. In blind testing programs where you test people who do not know that they are being tested, then the error rates go up significantly.

So to speak for the person being tested, I would say that if you are going to be subjected to testing, I would like a good screen. I would like a good confirmatory test, and then I would like the right to pick my own lab to make sure that they were right in the first place.

Thank you.

[The statement follows:]

TESTIMONY OF LAWRENCE MIIKE
OFFICE OF TECHNOLOGY ASSESSMENT
U.S. CONGRESS
BEFORE THE SENATE COMMITTEE ON THE JUDICIARY

Accuracy and Reliability of Urine Drug Tests

April 9, 1987

Thank you Mr. Chairman. I am Dr. Lawrence Miike, Senior Associate in the Health Program of the Office of Technology Assessment, and I have been asked to comment on the accuracy and reliability of urine drug tests. Maria Hewitt, analyst in the Health Program, assisted me in preparing this testimony.

What Drugs Are Included In Screening Programs?

Almost all drugs (or their byproducts, because the body metabolizes or breaks down the original drug) can be detected in urine using available tests. However, it is important to note that the presence of drugs in urine does not necessarily indicate impairment but rather that the individual has used the drug recently. In general, a person's urine will test positive for one to three days following use. The exception is marijuana, which is also the most frequently used illegal drug, for which urine tests can remain positive for several weeks, because the active ingredient in marijuana is stored in the body's fat, prolonging the time it takes to clear the drug from the body. When a drug screening program is initiated, or when preemployment drug screening is performed, some employers warn employees or prospective employees several weeks in advance to give them a chance to discontinue drug use so that they can start with a "clean slate".

The number of drugs for which screening tests are available is large, and the drugs that are screened for can vary quite widely among drug screening programs. However, most employee screening programs are limited to some or all of the following drugs or classes of drugs:

Amphetamines
Barbiturates
Benzodiazepines (e.g., Valium^{TM}, Librium^{TM})
Cannabinoids (marijuana)
Cocaine
Methaqualone (Quaalude)
Opiates (e.g. morphine).
Phencyclidine (PCP)
Propoxyphene (Darvon^{TM})
LSD

The selection of specific drug tests to be included in a screening program will depend on the program's objectives. For example, for air traffic controllers, any drug capable of impairing performance, including prescription medications, would be considered for inclusion. Although pain killers, sleeping pills, tranquilizers, and stimulants are among the abused drugs, their presence in urine is not necessarily indicative of abuse. Thus, an employer may limit testing to commonly used illegal drugs such as marijuana and cocaine, or test for several illegal drugs, but only one or two at a time on a rotational basis (sometimes referred to as "pulse testing"). Drug screening programs may exclude certain tests because of limitations of the technology. For example, a positive test for opiates is not irrefutable, since available tests cannot distinguish the small but detectable amounts of morphine in urine following ingestion of poppy seeds from morphine attributable to illicit drug use. Finally, if there is a history of specific drug use, testing can be targeted to selected drugs.

There is even great variability in existing drug screening programs in the Federal government. The results of the February 1986 survey of drug screening programs in Federal agencies, which was conducted by the Subcommittee on Civil Service of the House Post Office and Civil Service Committee prior to the President's directive to all Federal agencies to implement drug screening programs, are summarized in Table 1. For example, while the Army reported testing only for marijuana and cocaine, the Navy tested or was anticipating testing for all drugs listed in Table 1 except for methaqualone (Quaalude) and the "other" category. Although most agencies reported screening for marijuana use, the Secret Service excluded marijuana. The Federal Aviation Administration screened for a number of drugs, including pain killers, tranquilizers, stimulants (amphetamines), and quinine (because it is commonly used to "cut" heroin), but the FAA did not screen for sedatives (barbiturates).

How Do Drug Screening Tests Work?

The tests commonly used in urine drug screening programs are based upon one of four methods: three types of immunoassay and thin layer chromatography (TLC). Immunoassays depend on antigen-antibody reactions, with the drug to be tested for acting as the antigen. TLC is, in essence, a way of separating substances by taking advantage of the relative rates at which different substances migrate in a solid medium when carried by a liquid solvent.

The antibodies that are used in the immunoassay-based tests are directed at specific drugs and are produced by injecting animals with the drug or with one of the major byproducts of the drug (in some cases a drug itself is broken down (metabolized) before it is excreted in the urine). In addition to these antibodies against the drug, the test kits contain solutions of known quantities of the drug. In the EMIT, or enzyme multiplied immunoassay test, the drug or its metabolite is linked to an enzyme. In the RIA or radioimmunoassay test, the drug or its metabolite is linked to radioactive iodine; and in the TDx System, it is labeled with fluorescein. In conducting the test, the antibody solution is first mixed with the urine sample, then

Table 1

Drug Testing in Federal Agencies, 1986

	Army	Air Force	Navy	FAA+	Secret Service#	Customs Service#
Amphetamines	-	*	*	*	*	*
Barbiturates	-	*	*	-	*	-
Marijuana	*	*	*	*	-	*
Cocaine	*	*	*	*	*	*
Methaqualone	-	-	-	-	*	-
Opiates	-	*	*	*	*	*
PCP	-	*	*	*	*	*
LSD	-	-	*	-	-	-
Others						
quinine	-	-	-	*	-	-
pain killers	-	-	-	*	-	-
tranquilizers	-	-	-	*	-	-

+ FAA = Department of Transportation's Federal Aviation Administration
# Department of the Treasury
* Currently testing
- Not currently testing

Source: Subcommittee on Civil Service, House Post Office and Civil Service Committee, February 1986 with the solution containing labeled drug. Any drug in the urine competes with the enzyme-linked or radioactively/fluorescein labeled drug for the antibodies. When a specific drug is present in the urine sample being tested, it will bind to the antibody, leaving the labeled drug that is supplied in the test kit unbound to varying degrees, depending on the amount of drug in the urine specimen. In the case of the EMIT test, when the drug being tested is present in the urine sample, the enzyme-linked drug is not bound to antibody and is free to react with other substances in the testing solution. The degree of turbidity (cloudiness) in the solution resulting from this reaction is quantifiable and indicates the amount of drug present. A similar principle is employed in the RIA test. The antigen-antibody complex is precipitated out of the solution, and the proportion of antibody bound to labeled versus unlabeled antigen (drug) is measured. The presence of a drug is detected by the Tdx System when polarized light excites the unbound fluorescein to emit light, which interferes with polarization. When a drug is not present in the urine, polarization is maintained. The concentration of a drug in the specimen is established by measuring the polarization values of calibrators with known concentrations of the drug.

The fourth drug screening test, the TLC or Thin Layer Chromatography test, relies on a different underlying methodology. Drugs in urine have to be extracted and concentrated first, and some may have to be modified to make them soluble. The urine concentrates are placed on special frosted glass slides or filter papers, which are then dipped in solvent solutions. If drugs are present in the urine concentrate, the solvent will carry them up as it moves up the slide/paper. Substances can be identified by the distance they migrate in a given time interval and by characteristic color or fluorescent changes exhibited when exposed to other reagents and/or viewed under special lights.

With all screening methods, standards (premeasured amounts of drug) and blanks (negative samples) are analyzed along with samples to insure accurate results.

Both immunoassays and TLC can be used to screen for multiple drugs. In the case of immunoassays, the test for each specific drug is conducted individually, but automated testing systems enable a laboratory to quickly test for a number of drugs serially. With TLC, the presence of several drugs can be simultaneously tested, but the method is not automated, and results must be read by a trained technician. The TLC test generally cannot detect drugs at levels detectable using the immunoassay techniques, and marijuana, PCP, and LSD cannot normally be detected in urine using this technique. The use of the radioimmunoassays is limited to laboratories with a license to handle radioactive materials. The enzyme-based tests, in contrast, do not require specialized facilities or handling procedures and, in some instances, have been marketed directly to employers to be conducted at the worksite.

Confirmatory Testing

"Screening" tests are by definition not definitive. Confirmatory tests must be used to distinguish between positive screening results that are due to the presence of the drug in the urine specimen from positive screening results that are due to cross-reactivity of the drug test with other substances in the urine specimen or tc testing errors. Confirmatory tests rely on sophisticated chromatographic methods which use gas or liquid as the transporting medium. In gas chromatography, for example, the suspected drug is converted into its gaseous form and pushed through a long glass column with helium gas. The time it takes to traverse the entire column and exit out the far end is very specific (to one-hundredths of a second) for each drug. Furthermore, as the drug exits, it is bombarded by electrons that break up the drug, and these pieces are then analyzed by a mass spectrometer. Under proper conditions, a drug will always break up into the same parts, and the mass spectrometer will provide a readout of the various pieces by their weights and relative amounts. Thus, a gas chromatography/mass spectrometry (GC/MS) machine: 1) identifies the precise time when a particular drug exits from the column, and 2) provides a characteristic molecular "fingerprint" of a particular drug by the different masses of its component parts. The information-processing capabilities of a GC/MS machine can be calibrated to display all of the component parts of a drug or focused on one or more components to provide detailed information on those particular components. For example, in drug testing, the machine is usually calibrated to look for a particular drug and to focus on those drug components that are present in greatest concentrations.

A gas or liquid chromatograph can also be linked to two other methods of precisely identifying a drug. Light (e.g., in the infra-red spectrum) will be absorbed in characteristic patterns by the molecular groups comprising a particular drug, and each drug will also have a characteristic nuclear magnetic resonance (NMR, using the same principles underlying the medical uses of magnetic resonance imaging, or MRI). For example, all three methods, mass spectrometry, light absorption, and NMR, coupled with gas or liquid chromatography, are used by the Federal Food and Drug Administration (FDA) to identify trace amounts of contaminants and residues in drugs, cosmetics, and color additives.

A gas or liquid chromatograph (usually with light as the detector at the end) could be used to screen for drugs by calibrating it so that it would scan for all substances that come out of the chromatograph column (for example, see AAB's proficiency testing program results in Attachment II). In practice, preliminary identifications are made by immunoassays or TLC, and a

GC/MS machine is calibrated to look specifically for the drug identified at screening. This increases the machine's ability to detect the specific drug in question but as a consequence of the calibration, the GC/MS machine, when used for confirmatory testing, will not identify other drugs that might be present. Thus, separate GC/MS tests must be performed for each drug whose presence has been indicated by the screening tests.

Both screening and confirmatory tests can reliably and consistently detect the presence of drugs only down to specified minimum concentrations; below these levels, the reliability of the findings is questionable, and drug concentrations below these "cutoff" levels are reported as "negative." In general, the cutoff level for confirmatory tests is lower than that of the screening tests, because of the ability of the confirmatory test to detect smaller amounts reliably. The lower cutoff level also allows for some degree of sample degradation between initial screening and follow up testing. In some cases (e.g., cannabinoids in marijuana), the confirmation cutoff is set at a much lower level than the immunoassay screening cutoff, because the screening test reacts with several marijuana substances, while the more specific confirmation method is directed at only one.

Determining Positive Or Negative Results

The manufacturers' claims regarding the capabilities of four of the commercially available screening tests (Abuscreen^R [RIA], EMIT^R, TOXI-LAB^R [TLC], TDx^R) are summarized in Attachment I. These tests can detect extremely small amounts of drugs -- in billionths (nanograms) and even in trillionths (picograms) of a gram (there are 454 grams in one pound). As the lower limits of their detection capabilities are reached, however, questions can arise as to whether a drug is present or not. For example, Hoffman LaRoche claims that one of its amphetamine radioimmunoassay tests can detect the presence of amphetamines in as low a concentration as 5 nanograms/ml, but it provides a reference standard of 1,000 nanograms/ml as the cutoff point between a positive and a negative test. Using this cutoff level, individuals with low levels of drug in their urine would test negatively.

A manufacturer's recommended cutoff level between a positive and negative reading is based on the potential inconsistencies from test to test of measuring drug concentrations below that level, even though the test may generally detect lower concentrations of the drug. In addition, the higher cutoff levels serve to limit the number of false positive results attributable to the presence of drugs/metabolites that cross-react with a particular test's reagents. If cross-reactivity with other drugs occurs, it often results in positive findings that indicate the drug being screened for is present, but at levels close to the recommended cutoff level (e.g., see Syva's EMIT test for amphetamine in Attachment I). Similarly, cut points above the lowest level of detection that the tests are capable of, greatly reduce the chance that a positive test can be attributed to passively inhaling marijuana smoke, drinking herbal teas containing small amounts of cocaine, or eating poppy seeds which naturally contain small amounts of morphine.

Despite cutoff levels above the lowest detection levels, cross reactivity remains a problem for some drug screening tests. For example, phenylpropanolamine, an ingredient in many over-the-counter cold preparations, reacts with the EMIT^{R}-d.a.u.^{TM} antibody for amphetamine, resulting in false positives. (See Attachment I for a list of cross-reactive drugs for each screening test). It is therefore essential to submit all positive screened samples to more specific confirmatory tests to distinguish these cross-reactive substances from the drugs being tested for.

Drug screening programs can only identify those engaged in recent drug use, and the detectable period of time since last use depends on how quickly the drug is metabolized and excreted. People with very high levels of drugs in their urine will be treated the same as people who have levels of drugs in their urine that are barely above the cutoff points of the tests being used. While most drugs are metabolized and excreted in a matter of hours, users of marijuana, as noted previously, have tested positive for as long as one to two months after having discontinued use. Furthermore, in some instances, the three immunoassays and the TLC test have different cutoff points. Therefore, a person may test positive with one test, and negative with another. Finally, there can be wide variations in results, especially at lower concentrations; i.e., at the cutoff points adopted for each type of test. The College of American Pathologists' proficiency testing (to be discussed below) of cannabinoids, for example, showed the RIA test correctly identified only 64 percent of samples with drug present at the recommended cutoff level (see Attachment II).

Placing the cutoff level at the least amount of drug detectable will identify more recent drug users, but consistency in identification will suffer. Placing the cutoff level at a higher level will identify relatively fewer drug users, but testing consistency can be greatly improved.

The validity of the results of a urine drug test also depends, of course, on urine samples that have not been tampered with. Some programs incorporate direct witnessing of urine collection to ensure that specimens are not adulterated. The addition of table salt, detergent, or other commonly available household chemicals to a specimen can destroy the drugs present in urine or affect the assay in such a way as to produce a false negative. Simply adding water to a sample or drinking large quantities of water before providing a sample to dilute the urine could lead to a false negative. However, by checking the specific gravity (a measure of the diluteness of the specimen) or the PH (a measure of acidity) of the urine, the adulteration of a specimen can often be detected.

Accuracy And Reliability Of Urine Drug Tests

Sensitivity and Specificity

A distinction must be made between the accuracy and reliability of the testing techniques themselves and of the results of these tests in everyday use. This is the difference between "efficacy" and "effectiveness", or the probability of obtaining the degree of accuracy and reliability of which the tests are capable under ideal versus average or actual conditions of use. From this standpoint, the urine drug screening tests, coupled with confirmatory testing, are highly efficacious; but there are legitimate concerns over their effectiveness, especially in mass testing programs.

How accurate are these tests? Here, a distinction between a test's "sensitivity" and "specificity" must be made. Sensitivity refers to the test's ability to correctly identify specimens containing drugs, and specificity refers to the test's ability to correctly identify drug-free urine specimens. The sensitivity of a test is measured by the number of "false negative" test results, while a test's specificity is measured by the presence of "false positive" results.

A test that is 95 percent sensitive means, for example, that when 100 samples known to contain the drug are tested, 95 will test positive and 5 will test negative. This means that 5 percent of the samples will be false negatives. These false negatives often occur at drug levels at the lower limit of the test's detection capabilities. On the other hand, a test that is 95 percent specific means, for example, that when 100 samples known not to contain the drug are tested, 95 will test negative and 5 will test positive. False positives therefore occur when the test says that the drug is present when in fact it is not. False positives can occur from the idiosyncrasies associated with a particular test or, in the case of the immunoassays, from cross-reaction of the antibodies used in these tests with substances such as prescription or over-the-counter drugs that have similar molecular shapes to the drugs being tested, or from other substances in urine that might cause a positive reaction. Sensitivity and specificity and their relationship to false positives and false negatives are summarized in Table 2.

If a very sensitive but relatively non-specific screening test is used, more drug users will be identified, but many non-drug users will be tentatively identified as drug users. As the confirmatory test is moderately expensive, a screening test with these characteristics would be costly. Usually, sensitivity comes at the expense of specificity or vice versa (it is unusual for a test to be both 100% sensitive and specific). A case in point is the screening and confirmatory testing for the AIDS virus (HIV, or human immunodeficiency virus) that is currently applied to all blood donations. Since the primary objective is to screen out HIV carriers, the screening test's cutoff point has been deliberately set at a low level. This in turn

Table 2

Sensitivity and Specificity of Drug Screening Tests

		Drug in Urine	
		PRESENT	ABSENT
Screening Test	POSITIVE	A = True Positive	B = False Positive
	NEGATIVE	C = False Negative	D = True Negative

Sensitivity = A/(A + C)

Specificity = D/(B + D)

results in a large number of false positives that need to be distinguished from true positives with confirmatory testing (the "Western Blot" test). In the case of employee drug testing, minimizing the number of false positives may be the preferred objective, even though some drug users will not be identified by raising the cutoff level.

How sensitive and specific are the drug screening tests? To answer this question a relatively large number of confirmed (by GC/MS) positive and negative urine specimens should be blindly tested (i.e., the technician should not know whether it is positive or negative) using the screening methods. It is especially important to evaluate the screening test using samples with drug levels around the test's cutoff point. According to two of the manufacturers' product literature (Roche Biagnostics, Syva Corporation) the tests' sensitivity ranges from 97% to 100% and the specificity, from 99% to 100%. However, the manufacturers, in presenting the clinical data used in determining test accuracy, do not specify the level of drug in the urine samples tested, rely on small numbers of tests (e.g., only 13 positive samples were analyzed to describe an LSD test kit's performance), and in most cases, the results of the screening tests were not compared to GC/MS (i.e., in several instances, the results of an RIA-based screening test were compared to another RIA-based test).

Despite the shortcomings of the manufacturer-supplied data regarding test sensitivity and specificity, the screening tests appear to be quite accurate in identifying persons whose urine specimens should be subject to further, confirmatory testing. There are, however, two serious limitations. The first limitation is the extent to which human or technical (e.g., equipment) errors occur in performing the tests, or the proficiency of the testing program. The second is that the predictive value of a positive screening test, or the probability that a positive screening test will also be confirmed as positive by the GC/MS test, also depends on the proportion of persons in the tested population who actually have drugs in their urine (i.e., the prevalence of drug use in the tested population).

Proficiency Testing

Proficiency testing programs are offered by several scientific professional associations. The experience of these programs reveals test performance in actual rather than ideal, manufacturer-controlled conditions. Testing may be "open" or "blind". In open testing, laboratory personnel know that they are being tested, even though they may not know what drug(s) the test sample may or may not contain. In blind testing, test samples are mixed in with the real urine specimens that are sent to a lab so that the lab personnel do not know when they are actually being tested. Blind testing offers the best evidence on how accurately the tests are being performed.

A measure of reliable lab performance is how consistent the results of repeated measures of the same sample are. Some quality assurance programs split a urine specimen into several portions and submit them to the same laboratory (by sending them to different laboratories, interlaboratory variability also can be measured). Variation in results on the same sample is observed and is especially critical for those specimens testing positive around the cutoff level. Some recommend that positive screening tests be repeated to ensure that the screening result obtained does not represent an aberrant value, sometimes referred to as an "outlier". In studies of testing within the same lab, as many as 5 to 15 percent of the results have been found to represent these outliers.

The principal safeguards against incorrect laboratory testing are: 1) State licensing of clinical labs, 2) certification programs for labs and their personnel that are conducted by professional associations, and 3) proficiency testing.

The extent and quality of laboratory regulation varies tremendously from State to State, and additionally, employee drug testing is not subject to as much regulation as clinical testing. In many States, it is quite easy to establish a drug testing laboratory with little or no monitoring. The extent of regulation may also depend on the type of drug testing. For example, the RIA test, because it involves radioactive ingredients, is more regulated than is the EMIT test.

Certification programs may include specifying the minimal educational requirements for personnel working in labs and the protocols to be followed in testing. Proficiency testing involves submitting samples of known content to labs to see how well they perform. Samples may be provided so that the lab knows it is being tested (i.e., open proficiency testing), or mixed in with the usual specimens submitted to the lab so that the lab does not know when it is being tested (i.e., blind proficiency testing). In general, labs perform better when they know they are being tested, which reinforces the assumption that more errors occur under average versus ideal conditions of use.

Proficiency testing of labs that perform drug testing has revealed severe deficiencies in the past 10 years. Actually, most of the deficiencies have been in not being able to identify positive samples rather than in identifying negative samples as positive. Some of these errors have been attributed to "sink testing" or throwing away a sample and reporting it as negative. The error rates as published in the literature have improved as tests and lab experience have improved, but some level of error is to be expected, especially when these tests are being conducted on large numbers of people. The proficiency testing program established under the Clinical Laboratories Improvement Act of 1967 and conducted by the Centers for Disease Control was discontinued as of September 30, 1986. Furthermore, for a number of years CDC's principal involvement had been in clinical testing, not in proficiency testing of drug screening programs. Only a handful of States have such proficiency testing programs. Several professional associations offer proficiency testing, some manufacturers of the test kits offer a form of proficiency testing, some Federal agencies have their own proficiency testing programs, and private firms have increasingly entered into the proficiency testing business.

In recognition of the increase in drug testing programs and the lack of uniform performance standards to ensure the credibility of the results of laboratories conducting the analyses, the National Institute of Drug Abuse (NIDA) is devising laboratory accreditation standards which will be implemented in early 1987. The standards incorporate measures to help ensure analytic accuracy and adherence to appropriate forensic procedures such as "chain of custody". Prerequisites to laboratory accreditation will include: 1) evidence of adequate performance in an established "blind" proficiency testing program and ongoing participation in such a program; 2) the existence of sufficient onsite resources with which to conduct both screening and confirmatory testing; 3) appropriately trained directors and supervisors of laboratory services; 4) the presence of an internal quality assurance/quality control program; and 4) submission to pre-accreditation and periodic post-accreditation inspections. The NIDA standards should be finalized in early 1987 and once laboratories have had the opportunity to generate proficiency testing scores, the accreditation process will begin. Although the program will be voluntary, NIDA will maintain a list of accredited laboratories that will be offered to employers planning to implement drug testing programs. It is hoped that the desire to appear on such a list will prompt laboratories to adhere to the standards and become accredited. In addition, once standards for drug testing laboratories are established, results from laboratories not conforming to these standards are likely to become unacceptable in a court of law.

Proficiency testing of clinical laboratories has been offered by five major programs; the American Association of Bioanalysts, (AAB), the College of American Pathologists (CAP), the American Society of Internal Medicine (ASIM), the American Association for Clinical Chemistry (AACC), and the Centers for Disease Control. However, proficiency testing of urine drug screening is currently offered by only three professional associations, AAB, CAP, and AACC. The AAB's program is four years old, with approximately 300 participants, including clinical labs and testing programs in correctional institutions and probation offices. In these settings, the tests may not be performed by trained laboratory personnel. The CAP program is two years old, also with approximately 300 participants, including many hospital clinical laboratories. The AACC program is two years old, with approximately 250 participants, largely labs in hospitals with over 200 beds. The drugs that are included in the proficiency testing programs of AAB and CAP are identified in Attachment II. Recent results of AAB's and CAP's proficiency testing program for urine drug testing are also presented in Attachment II.

For a $145 yearly fee, the AAB sends two urine samples for each of the drugs identified in the Attachment II to ten reference labs and its approximately 300 participants four times a year. The ten reference labs have long-standing relationships with the Association and are used so that participants can compare their results not only against the overall performance of their fellow participants but also against what would be considered excellent labs. Participants and the reference labs test these samples for the indicated drugs and report their results to the Association, who in turn, informs them of their individual results, the reference lab results, and the overall results of the participants. A variety of testing methods are used. Two of the reference labs use GC/MS, one uses TLC, and the rest use EMIT. Most of the participants use EMIT, and others use RIA, TLC, or GC/MS. Thus, the 1985-86 results summarized in Attachment II represent the gamut of testing methods and personnel. Attachment II summarizes these results by the type of test used.

In the AAB results summarized in Attachment II, "spike level" refers to the amount of drug that is actually contained in the sample sent to the reference labs and participants. False positives ranged from zero to ten percent when more than 50 samples were available for analysis, with the TLC method having the highest false positive rate. False negatives ranged from zero to 25 percent (when more than 50 samples were available).

These results show that the EMIT test, the most widely used test, is usually very sensitive and specific. However, in most instances, the drug levels in the specimens tested were well above (as much as eight times) the cutoff level. The AAB proficiency testing program provides urine samples that do not contain drugs that may cross react with the test reagents; e.g., there are no cold medications in the samples that might give a "false positive" reading on the amphetamine test. Thus, the "false positive" rate among AAB's participants represents intrinsic errors in the tests themselves and in performing the tests. Since participants know they are being tested and which specific drug they are testing for, most of the errors are presumably due to the limitations of the tests themselves.

For a $224 fee, the College of American Pathologists (CAP) also sends urine samples four times a year to its reference labs and participants. However, CAP sends three urine samples, each of which contains different combinations of drugs from its testing list (see Attachment II for the complete list), and participants reply with a list of drugs they believe are contained in each sample. Results are also reported according to the test method. Thus, CAP's participants must test the samples for many drugs, in contrast to AAB's participants, who test each sample for the presence or absence of a specific drug. Participants in both AAB's and CAP's programs, however, know they are being tested (open testing).

Selected results of the first quarter of 1985 in CAP's program are summarized in Attachment II (see notes for the full list of drugs that were tested in each of the three samples). Thin layer chromatography (TLC) was generally both less sensitive and less specific than the immunoassays (false positives were principally due to TLC -- see notes accompanying the results). Interestingly, participants did not do well with gas chromatography as the screening test for amphetamines. While radioimmunoassays were reported only for the cannabinoid test in the first quarter of 1985, it nevertheless was significantly less sensitive than either TLC or enzyme immunoassays at a 100 ng/ml concentration (64.3% vs. 83.3% and 85.0%, respectively). (The RIA test is used in the military because of early problems with the EMIT test.) In its analysis of these results, CAP noted that the previous year's sample contained cannabinoid at 200 ng/ml and that testing at the 100 ng/ml level decreased positive findings by almost 10 percent. CAP therefore suggested that the cutoff point should be reconsidered "since some agencies such as the military use 100 ng/ml as the minimum as a basis for a presumptive positive."

Predictive Value of Screening Tests

If an individual tests positive on the screening test, how likely is it that the results will be confirmed with GC/MS; in other words, what is the predictive value of a positive screening test? The answer to this question depends on the test's sensitivity and specificity and upon the prevalence of drug use in the population being tested. If a drug screening test is 95% sensitive and 90% specific and is applied to a population of which 10% has drugs in their urine (i.e., the average prevalence of drug use in the general population), only 51% of positive screening tests would be confirmed with GC/MS. If the same test is applied to a population of which 50% has drugs in their urine (i.e., clients of a methadone maintenance clinic, or perhaps roughly equivalent to the prevalence among those tested in a probable cause testing program), 90% of the positive screening tests would be confirmed. These very different predictive values can be attributed to the fact that in the first case, drug use is low and although the test is 90% specific, 10% of those without drugs in their urine will test falsely positive. When a large population characterized by low drug use is screened, almost half of positive screening tests will be false positives. This has significant implications for costs, particularly when costs are specified in terms of the cost to identify one positive case of drug use. Although the tests used for drug screening are relatively inexpensive (about $5 per test or approximately $15 per individual for a battery of tests), confirmatory tests are much costlier, averaging approximately $40 or $50 per test. The cost of identifying one case of confirmed drug use in the low prevalence (10%) example is more than three times the cost expected in the high prevalence example -- $236 compared to $76. This is due to many more nonusers in the low prevalence group being falsely identified as positive in the screening test, and the costs that have to be incurred with confirmatory testing to prove that the screening tests results were wrong. Table 3 summarizes the relationship between sensitivity, specificity, prevalence of drug use, predictive value, and cost. Table 4 provides comparisons of the costs associated with identifying one case of confirmed drug use among populations with different drug use rates.

New Drug Testing Methods

Because of the current interest in drug testing, a variety of new

Table 3

Relationship Between Sensitivity, Specificity, Prevalence of Drug Use, Predictive Value of Drug Screening Tests, and Costs Incurred in Identifying One Case of Drug Use Correctly

Hypothetical Situation:

200 persons tested:

1) First group with 10 percent with drug in urine, such as in a mandatory or random testing program.

2) Second group with 50 percent with drug in urine, such as in testing only with reasonable cause.

Screening test with:

a) 95 percent sensitivity

b) 90 percent specificity

Cost of testing:

a) Screening -- $15

b) Confirmation -- $40

What this example will illustrate is:

1) the predictive value of positive tests when applied to a low prevalence versus a high prevalence population of drug users; and

2) the costs incurred in identifying a drug user correctly when high prevalence versus low prevalence populations of drug users are tested.

Table 3 (cont'd.)

Drug in Urine (10% prevalence)

Screening Test	PRESENT	ABSENT
POSITIVE	19	18
NEGATIVE	1	162

Percent of the time a positive screening test would be correct:

$$\frac{19}{(19 + 18)} = 51\%$$

Drug in Urine (50% prevalence)

Screening Test	PRESENT	ABSENT
POSITIVE	95	10
NEGATIVE	5	90

Percent of the time a positive screening test would be correct:

$$\frac{95}{(95 + 10)} = 90\%$$

In this example, the predictive value of positive screening tests would be 51% vs. 90%

Table 3 (cont'd.)

	10% Prevalence of Drug Use:	50% Prevalence of Drug Use:
Screening:	200 x $15 = $3,000	200 x $15 = $3,000
Confirmation:	37 x $40 = $1,480	105 x $40 = $4,200
Total Cost:	$4,480	$7,200
Cost per person tested:	$22.40	$36.00
Cost of each positive case found:	$4,480/19 = $236	$7,200/95 = $76

Cost ratio of "random" vs. "probable cause" testing: 3.1

In this example, it would cost 3.1 times more to identify a positive case with "random" testing than with "probable cause" testing.

Table 4

Relationship Between Prevalence of Drug Use and the Predictive Value of a Positive Screening Test*

PREVALENCE OF DRUG USE	PREDICTIVE VALUE OF A POSITIVE SCREENING TEST**	COST TO IDENTIFY EACH POSITIVE URINE SPECIMEN+
2%	16%	$1,036
5%	34%	$436
10%	51%	$236
25%	76%	$116
50%	90%	$76

*Predictive value of a positive test - The likelihood that a positive test actually reflects the presence of drugs in urine

**Assumes a test sensitivity of 95% and specificity of 90%

+Assumes cost of initial screening is $15.00 and confirmatory testing is $40.00

approaches to screening and confirmatory testing is being explored. Some of these efforts are directed at developing new analytic methods, while others are directed at making testing systems that will be simpler and perhaps less expensive than those in current use. In addition, the use of other biological specimens, such as saliva, is being explored as alternatives to urine. Some are developing noninvasive means of diagnosis, such as equipment to determine drug effects based on specific electrical outputs from the brain. Methods to measure impaired performance as an indicator of a drug effect are also under investigation.

In the area of screening, monoclonal antibody-based assays tests will soon be available (Roche Diagnostics). The use of systems based on fluorescent labels will probably also be expanded (Abbott Laboratories currently uses this methodology). Some investigators are trying to develop portable test systems that can produce results rapidly, such as urine dipstick tests.

Efforts are underway to make mass spectrometry more economical. GC/MS analyses are time-consuming and involve extensive sample preparation. As this method is highly specific and sensitive, some would like to explore its use as a screening as well as a confirmation method. A new MS technique called tandem mass spectrometry (MS/MS) holds some promise for applications in urine drug screening. MS/MS is a technique that couples two mass spectrometers together, so that one acts as the sample separator system and the second as the ultimate analyzer. This approach could allow a relatively crude sample to be introduced directly into the first MS machine, eliminating the time-consuming chromatography step, while at the same time providing increased sensitivity. Connecting a liquid (as opposed to a gas) chromatograph to a mass spectrometer (LC/MS) is another technique which may reduce sample workup time and is being considered for confirmatory testing.

Other types of biological samples, including blood, hair, and saliva, have been proposed as alternatives to urine for drug screening. Although blood tests potentially provide a more specific indication of drug impairment, such analyses generally require more sophisticated techniques and more invasive sample collection than is the case with urine testing. Although many drugs can be detected in saliva, the analytic methods are more difficult than for urine, and the time period during which drugs can be detected after use is usually only a few hours. Hair analysis has been proposed, but the analytic methods have not been sufficiently validated to assess their suitability for drug screening.

Summary

There are intrinsic limitations with the drug screening tests, and errors are inevitable as a consequence of cross reactivity and from laboratory performance errors, especially in mass screening programs. However, when positive results from the screening tests are confirmed with a specific test such as GC/MS, the results are highly reliable and difficult to dispute. Errors in performing or interpreting the GC/MS have occurred, but the principal area in which improvement is needed is in the performance of the initial screening tests, where the quality of the laboratories and the proficiency of laboratory personnel need to be constantly monitored. The laboratory accreditation program of NIDA will help to ensure the accuracy of results among participating laboratories. However, it will certainly take time before the standards proposed become a part of routine practice; until then, those employers engaged in employee drug screening are well advised to scrutinize the practices of the laboratories performing such analyses.

An important factor in determining whether a drug screening program should be instituted is the costs of such programs, and especially the cost-effectiveness of using mass screening approaches to identify drug users. Cost-effectiveness decreases dramatically with decreasing drug-use prevalence among the tested population. The high costs associated with confirmatory testing makes it tempting for companies engaged in preemployment drug testing to simply refuse to employ all persons who test positive on the screening test, rather than spend money on confirmatory testing. The example illustrated above for a population with a drug use prevalence of 10 percent would not be unlike the job applicant pool, and we have seen that, even with a test that is 95 percent sensitive and 90 percent specific, more than half of those presumed to be drug users through the screening test would be falsely accused.

One legislative attempt to address the issue of drug testing accuracy and reliability is currently before the California Assembly (see Attachment III). It is my understanding that the original bill would have required that initial testing be conducted in specified labs, but that employers objected, because they wanted to test at the worksite through their own or contract labs, which would be less costly for them. The bill tries to resolve this issue by requiring that "all employers requesting or requiring the testing of employees, both public and private, use specified licensed or certified laboratories to confirm the test or screen, if the first test or screen is positive...An employee or job applicant shall have the right to retest a positive sample".

ATTACHMENT I

Comparison of Commercially Available
Drug Screening Tests

Comparison of Commercially Available Drug Screening Products

TEST	Abuscreen^{R}	EMIT^{R} d.a.u.^{TM}	TOXI-LAB^{R}	TDx^{R}
MANUFACTURER	Roche Diagnostics, Hoffman LaRoche	Syva	Analytical Systems, Marion Laboratories, Inc.	Abbott Laboratories
PRINCIPLE	Radioimmunoassay(RIA)	Enzyme immunoassay	Thin layer chromatography	Fluorescence Polarization immunoassay
DRUG/METABOLITE	Amphetamine/metabolites	Amphetamine, Methamphetamine	Amphetamine	not available
LOWER LIMIT OF DETECTION	5 ng/ml (high spec.)			
CUT POINT	1000 ng/ml	300 ng/ml	2000 ng/ml	
CROSS REACTIVITY	result when 1000 ng/ml of drug present:	Conc. producing positive result		
	Phenylpropanolamine HCl= 0 (found in many OTC cold medications)	>1000 ng/ml*	10000 ng/ml	
	Methamphetamine HCl =45 (found in prescription diet medications)	<=1000 ng/ml	4000 ng/ml	
	Dopamine =12 (used in treatment of hemodynamic imbalances)			
	Ephedrine (found in prescription asthma medications)	>1000 ng/ml*		
	Isoxsuprine (vasodilator)	>6000 ng/ml		
	Mephentermine (cardiovascular agent)	> 500 ng/ml		
	Nylidrin (vasodilator)	>2000 ng/ml		
	Phenmetrazine (found in prescription diet medications)	>1000 ng/ml		
	Phentermine (found in prescription diet medications)	> 500 ng/ml		
		* Cross reactivity eliminated with EMIT Confirmation Kit		
DRUG/METABOLITE	Barbiturate/metabolites	Barbiturate/metabolites	Barbiturate/metabolites	Barbiturate/ metabolites
LOWER LIMIT OF DETECTION				5 ng/ml
CUT POINT	200 ng secobarbital/ml	300 ng secobarbital/ml	1000 ng secobarbital	60 ng/ml 1000 ng secobarbital/ml
CROSS REACTIVITY	none observed (3396 ng/ml phenobarbital produces positive result)	none observed (3000 ng/ml phenobarbital produces positive result)	(5000 ng/ml phenobarbital)	500-2000 ng secobarbital/ml (700 ng/ml phenobarbital produces positive result at lowest cutpoint)

TEST	Abuscreen^{R}	EMIT^{R} d.a.u.^{TM}	TOXI-LAB^{R}	TDx^{R}
MANIFACTURER	Roche Diagnostics, Hoffman LaRoche	Syva	Analytical Systems, Marion Laboratories, Inc.	Abbott Laboratories
DRUG/METABOLITE	Cannabinoids Tetrahydrocannabinol (THC) metabolite-11-nor-delta-9-THC-9-carboxylic acid	Cannabinoids/metabolites	THC	
LOWER LIMIT OF DETECTION	5 ng/ml			
CUT POINT(S)	100 ng/ml	20 or 100 ng/ml	25-50 ng/ml	
CROSS REACTIVITY	Highly specific to cannabinoids and cannabinoid metabolites	Highly specific to cannabinoids and cannabinoid metabolites		
	Ibuprofen (Advil^{TM}, Motrin^{TM}) reported to cross react			
DRUG/METABOLITE	Cocaine metabolite benzoylecgonine	Cocaine metabolite benzoylecgonine	Cocaine metabolite benzoylecgonine	Cocaine metabolite benzoylecgonine
LOWER LIMIT OF DETECTION	5 ng/ml			30 ng/ml
CUT POINT	300 ng/ml	300 ng/ml	3000 ng/ml	300-5000 ng/ml
CROSS REACTIVITY	Cocaine and metabolites	none observed		none observed above lower limit of detection
DRUG/METABOLITE	LSD	not available	not available	
LOWER LIMIT OF DETECTION	.025 ng/ml			
CUT POINT	.5 ng/ml			
CROSS REACTIVITY	none observed			
DRUG/METABOLITE	Methaqualone	Methaqualone/metabolites Mecloqualone	not available	not available
LOWER LIMIT OF DETECTION	50 ng/ml			
CUT POINT	750 ng/ml	300 ng/ml		
CROSS REACTIVITY	none observed	none observed		
DRUG/METABOLITE	Morphine	Opiates	Morphine	Opiates
LOWER LIMIT OF DETECTION	10 ng/ml			25 ng/ml
CUT POINT	300 ng/ml	300 ng/ml (morphine)	3000 ng/ml	200-1000 ng/ml
CROSS REACTIVITY	Conc. producing a positive result (ng/ml)	Conc. producing a positive result (ng/ml)		
	Codeine 222	1000 ng/ml		200 ng/ml
	Dihydrocodeine bitartrate 1007 (found in prescription analgesics)			
	Hydrocodone bitartrate 1634 (found in prescription antitussives)	1000 ng/ml		500 ng/ml
	Other compounds cross react at conc above 1000 ng/ml	Hydromorphone 3000 ng/ml (found in prescription antitussives)		500 ng/ml
		Levorphanol 3000 ng/ml (found in prescription analgesics)		500 ng/ml
		Oxycodone 50000 ng/ml (found in prescription analgesics)		10,000 ng/ml

TEST	Abuscreen^{R}	EMITR d.a.u.^{TM}	TOXI-LAB^{R}	TDx^{R}
MANUFACTURER	Roche Diagnostics, Hoffman LaRoche	Syva	Analytical Systems, Marion Laboratories, Inc.	Abbott Laboratories
DRUG/METABOLITE	Phencyclidine (PCP) metabolite (1-(1-phenylcyclohexyl)-4-hydroxypiperidine	PCP, analogues and metabolites	Phencyclidine (PCP)	Phencyclidine (PCP)
LOWER LIMIT OF DETECTION	2.5 ng/ml			
CUT POINT	25 ng PCP/ml	75 ng/ml	300 ng/ml	5 ng/ml
CROSS REACTIVITY	test result when 1000/10,000 ng/ml of the following present	none observed		25-500 mg/nl test result when 10,000/100,000 ng/ml present
	Dextromethorphan (found in prescription cough medications) -/9			-/19
	Diazepam (found in Valium^{TM}) -/6			-/-
	Imipramne (tricyclic Antidepressant)			11/53
RECOMMENDED SPECIMEN TREATMENT	Urine specimens which cannot be analyzed within 8 hrs after voiding should be refrigerated at 2-8° C. to minimize the possibility of degradation of positive samples.	Freshly voided urine specimens should be used. If not analyzed immediately, samples may be stored refrigerated. Prolonged refrigerated storage exceeding 3 days, however may result in + samples with drug conc. at or near the low calibrator assaying as negative. Sample should be within the pH range of 5.5 to 8.0. For cannabinoid screen, if not analyzed after 24 hrs, freeze specimen. Samples should be at room temperature for testing. Samples positive for cannabinoids which are stored for prolonged periods in plastic containers, in direct sunlight, or at elevated temperatures may exhibit lower detectable levels.		
NOTES	Use of radiolabeled antigen limits use of test to labs licensed to handle radioactive material	Other available tests: Benzodiazepine (e.g., Valium^{TM}, Librium^{TM}) Methadone Propoxyphene (Darvon^{TM})	Analytical Systems offers 3-day initial training workshop and a 2-day advanced training workshop Company also offers a proficiency testing service to subscribers. Company user survey revealed that 95% of respondents found TOXI-LAB reliable, 93% were confident with results and 92% found it easy to use.	Other available tests: Benzodiazepine Marijuana test expected to be available in 1987

Recent entries into drug testing include: Diagnostic Products Corporation for cocaine and morphine. Additionally, American Drug Screens Inc. is marketing hometesting of marijuana, cocaine, PCP, amphetamines, barbiturates, and benzodiazepine; and Medical Diagnostics Inc. expects to market a Quick Test Drug Screen for on-site testing of morphine, cocaine, amphetamines, and PCP.

ATTACHMENT II

Proficiency Testing by the
American Association of Bioanalysts
and
The College of American Pathologists

Urine Toxicology Proficiency Testing by the American Association of Bioanalysts and the College of American Pathologists

American Association of Bioanalysts:

- Amphetamines
- Barbiturates
- Benzodiazepines
- Cannabinoids
- Cocaine metabolite
- Methadone
- Methaquolone
- Opiates
- Phencyclidine
- Propoxyphene

College of American Pathologists

- ALCOHOLS-VOLATILES:
  - Acetone
  - Ethanol
  - Isopropanol
  - Methanol
- AMPHETAMINE GROUP:
  - Amphetamine
  - Methamphetamine
  - Phenylpropanolamine
- BARBITURATES:
  - Amobarbital
  - Butalbital
  - Pentobarbital
  - Phenobarbital
  - Secobarbital
- NON-BARBITURATE HYPNOTICS:
  - Ethchlorvynol
  - Glutethimide
  - Methaqualone
- BENZODIAZEPINES:
  - Nordiazepam
  - Oxazepam
- NARCOTICS OTHER THAN OPIATES:
  - Propoxyphene &/or metabolites
- OPIATES-SYNTHETICS:
  - Codeine
  - Hydromorphone
  - Methadone &/or metabolites
  - Morphine
- TRICYCLICS:
  - Amitriptyline
  - Amoxapine &/or metabolites
  - Desipramine
  - Doxepin &/or metabolite
  - Loxapine
  - Imipramine
  - Nortriptyline
- OTHER:
  - Acetaminophen
  - Benzoylecgonine
  - Cannabinoids
  - Chlorpheniramine
  - Desmethyldoxepin
  - Diphenhydramine
  - Mesoridazine
  - Pentazocine &/or metabolite
  - Phencyclidine
  - Phenothiazines
  - Pyrilamine
  - Quinine &/or metabolites
  - Salicylate
  - Thioridazine

Source: American Association of Bioanalysts; College of American Pathologists

RESULTS OF AMERICAN ASSOCIATION OF BIOANALYSTS
URINE TOXICOLOGY PROFICIENCY TESTING SERVICE
SENSITIVITY AND SPECIFICITY OF DRUG TESTS BY METHOD OF ANALYSIS
SUMMARY DATA (1985 AND FIRST THREE QUARTERS, 1986)

I. Identification of Samples Containing Drugs

		TEST-SPECIFIC RESULTS					
					TLC		
		EMIT	GC	RIA	TLC1=LAB PREPARED SYSTEM	TLC2= COMMERCIAL KIT	UNSPEC
	CUTOFF	300 ng/ml	1,000 ng/ml			2,000 ng/ml	
DRUG (SPIKE LEVEL)							
AMPHETAMINE (2500 NG/ML)	# CORRECT	475	11	1	32	24	22
	TOTAL SAMPLES	480	11	1	35	25	22
	SENSITIVITY	99%	100%	100%	91%	96%	100%
		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
	CUTOFF	300 ng/ml		200 ng/ml		1,000 ng/ml	
BARBITURATE (2500 NG/ML)	# CORRECT	298	10	0	22	15	21
	TOTAL SAMPLES	300	11	1	24	15	25
	SENSITIVITY	99%	91%	0%	92%	100%	84%
		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
	CUTOFF	300 ng/ml					
BENZODIAZEPINE (100 NG/ML)	# CORRECT	329	8	*	13	9	13
	TOTAL SAMPLES	333	10	*	21	12	16
	SENSITIVITY	99%	80%	*	62%	75%	81%
		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
	CUTOFF	100 ng/ml		100 ng/ml		25-50 ng/ml	
CANNABINOID (250 NG/ML)	# CORRECT	399	5	15	6	6	30
	TOTAL SAMPLES	407	7	15	6	7	30
	SENSITIVITY	98%	71%	100%	100%	86%	100%

		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
	CUTOFF	300 ng/ml		300 ng/ml		3,000 ng/ml	
COCAINE (2000 NG/ML)	# CORRECT	372	7	6	15	8	26
	TOTAL SAMPLES	376	10	6	17	13	27
	SENSITIVITY	99%	70%	100%	88%	62%	96%

		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
	CUTOFF	300 ng/ml		300 ng/ml		3,000 ng/ml	
OPIATE (400 NG/ML)	# CORRECT	213	4	3	2	1	8
	TOTAL SAMPLES	285	5	4	12	8	14
	SENSITIVITY	75%	80%	75%	17%	13%	57%
(1000 NG/ML)	# CORRECT	78	2	1	3	1	4
	TOTAL SAMPLES	78	2	1	4	3	4
	SENSITIVITY	100%	100%	100%	75%	33%	100%

		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
	CUTOFF	75 ng/ml		25 ng/ml		300 ng/ml	
PCP (200 NG/ML)	# CORRECT	160	4	5	5	5	1
	TOTAL SAMPLES	167	5	5	12	9	4
	SENSITIVITY	96%	80%	100%	42%	56%	25%
(400 NG/ML)	# CORRECT	56	1	0	3	1	2
	TOTAL SAMPLES	56	2	1	7	3	2
	SENSITIVITY	100%	50%	-	43%	33%	100%

II. Identification of Drug-free Samples

		TEST-SPECIFIC RESULTS					
DRUG		EMIT	GC	RIA	TLC1	TLC2	UNSPEC
AMPHETAMINE	# CORRECT	951	25	1	78	46	39
	TOTAL SAMPLES	954	25	1	85	47	39
	SPECIFICITY	100%	100%	100%	92%	98%	100%
BARBITURATE	# CORRECT	1118	26	2	76	57	68
	TOTAL SAMPLES	1122	29	3	84	61	68
	SPECIFICITY	100%	90%	67%	90%	93%	100%
BENZODIAZEPINE	# CORRECT	928	22	2	50	33	47
	TOTAL SAMPLES	929	22	2	53	35	48
	SPECIFICITY	100%	100%	100%	94%	94%	98%
CANNABINOID	# CORRECT	1397	21	55	20	19	62
	TOTAL SAMPLES	1403	21	55	20	19	62
	SPECIFICITY	100%	100%	100%	100%	100%	100%
COCAINE	# CORRECT	1513	21	14	81	42	92
	TOTAL SAMPLES	1517	22	14	83	45	93
	SPECIFICITY	100%	95%	100%	98%	93%	99%
METHAQUALONE	# CORRECT	512	4	5	85	51	25
	TOTAL SAMPLES	514	5	5	87	54	27
	SPECIFICITY	100%	80%	100%	98%	94%	93%
OPIATE	# CORRECT	1199	18	15	70	46	57
	TOTAL SAMPLES	1203	19	15	71	46	58
	SPECIFICITY	100%	95%	100%	99%	100%	98%
PCP	# CORRECT	798	22	19	83	50	40
	TOTAL SAMPLES	805	22	19	86	52	40
	SPECIFICITY	99%	100%	100%	97%	96%	100%

Proficiency Testing for Urine Drug Screening
Conducted by the College of American Pathologists
(First Quarter, 1985)

Specimen #1:

Drug	Primary Method	Referees		Participants	
		No.	% Present	No.	% Present
Benzodiazepines (as oxazepam, 2000 nanogm/ml)	Thin Layer Chrom.	1	100	99	45.5
	Enzyme Immunoassay	4	100	202	98.5
	ALL METHODS			317	80.1
Cannabinoids (100 nanogm/ml)	Gas Chromatography	1	100	--	--
	Thin Layer Chrom.	1	100	24	83.3
	Enzyme immunoassay	2	100	180	85.0
	Radioimmunoassay	1	100	14	64.3
	ALL METHODS			228	82.9
Phencyclidine (2000 nanogm/ml)	Gas Chromatography	2	100	7	100.0
	Thin Layer Chrom.	4	100	200	89.0
	Enzyme immunoassay	1	100	96	100.0
	ALL METHODS			317	92.4

False Positive Identifications:

Drug	No. of Participants
Amphetamine	33
Morphine	18
Quinine	11
Phenobarbital	10
Salicylates	8
Glutethimide	7
Hydromorphone	7
Chlorpheniramine	5
Methaqualone	3
Phenothiazines	3
Amoxapine	2
Doxepin	2
Acetone	1
Pentobarbital	1
Loxapine	1
Benzoylecgonine	1
TOTAL:	113 (mainly by unverified TLC)

Proficiency Testing by CAP (cont'd.)

Specimen #2:

Drug	Primary Method	Referees		Participants	
		No.	% Present	No.	% Present
Amphetamine Group (as amphetamine, 2000 nanogm/ml)	Gas Chromatography	1	100	4	50.0
	Thin Layer Chrom.	3	100	156	96.2
	Enzyme immunoassay	2	100	137	100.0
	ALL METHODS			313	97.4
Barbiturates (as Pentobarbital, 3000 nanogm/ml)	Gas Chromatography	1	100	3	100.0
	Thin Layer Chrom.	3	100	172	95.3
	Enzyme immunoassay	2	100	143	98.6
	ALL METHODS			335	97.0
Benzoylecgonine (5000 nanogm/ml)	Gas Chromatography	1	100	--	--
	Thin Layer Chrom.	1	100	137	79.6
	Enzyme immunoassay	5	100	148	100.0
	ALL METHODS			297	89.9

False Positive Identifications

Drug	No. of Participants
Morphine	15
Quinine	9
Salicylates	8
Hydromorphone	6
Chlorpheniramine	5
Phencyclidine	4
Amoxapine	3
Loxapine	3
Methaqualone	2
Methanol	1
Oxazepam	1
Phenothiazines	1
TOTAL:	58 (mainly by unverified TLC)

Proficiency Testing by CAP (cont'd.)

Note: Specimen #1 contained phencyclidine, oxazepam, methanol, ethchlorvynol, and 11-nor-delta 9-THC-9-carboxylic acid. This table only summarizes the results with phencyclidine, oxazepam (as "benzodiazepines"), and 11-nor-delta 9-THC-9-carboxylic (as "cannabinoids"). Specimen #2 contained benzoylecgonine, pentobarbital, amphetamine, and ethanol. Results are summarized for benzoylecgonine, pentobarbital (as "barbiturates"), and amphetamine (as "amphetamine group"). Specimen #3 contained chlorpheniramine, loxapine, and amoxapine and its metabolite 8-hydroxyamoxapine. This was the first time these analytes were included in the proficiency tests and so the results with specimen #3 are not summarized here. Trace amounts of methamphetamine, amphetamine, cannabinoids, acetaminophen, phenypropanolamine, diphenhydramine, and codeine were present in both specimens, but at concentrations greatly below the minimum amounts listed on the report form and far below the sensitivity of most methods. As a result, there were a greater number of analytes than usual for which false positive identifications were common to all three specimens. False positives are mainly by unverified Thin Layer Chromatography. In specimen #1, some labs attempted to specifically identify oxazepam but might have falsely identified nordiazepam instead. Since both are benzodiazepines, the nine false positive identifications of nordiazepam are excluded from the table. A similar situation existed with specimen #2, in which labs could attempt to distinguish between "barbiturates" and the specific barbiturate, pentobarbital. Therefore, false positive identifications of secobarbital, amobarbital, and butalbital were also excluded from the list of false positives for specimen #2.

Source: "Urine Toxicology 1985 Survey," College of American Pathologists, Skokie, Illinois

ATTACHMENT III

California Assembly Bill No. 330

Substance Abuse Testing Act of 1987

Introduced on January 21, 1987

CALIFORNIA LEGISLATURE—1987–88 REGULAR SESSION

ASSEMBLY BILL No. 330

Introduced by Assembly Member Klehs
(Principal coauthor: Senator Seymour)
(Coauthors: Assembly Members Eastin, Farr, and Hauser)

January 21, 1987

An act to amend Section 1300 of the Business and Professions Code, to add Chapter 5 (commencing with Section 11998) to Part 5 of Division 10.5 of the Health and Safety Code, and to amend Sections 1025, 1026, and 1027 of, and to amend the heading of Chapter 3.7 (commencing with Section 1025) of Part 3 of Division 2 of, the Labor Code, relating to substance abuse.

LEGISLATIVE COUNSEL'S DIGEST

AB 330, as introduced, Klehs. Alcohol and drug abuse.

(1) Under existing law, various fees are charged for applications and licensing of laboratories and laboratory personnel.

This bill would provide that the application fee for a clinical laboratory license is increased from $248 to $400 and the renewal fee from $196 to $355, effective January 1, 1988.

(2) Under existing law, various provisions relate to alcohol and drug abuse.

This bill would enact the Substance Abuse Testing Act of 1987 to require that all employers requesting or requiring the testing of employees, both public and private, use specified licensed or certified laboratories to confirm the test or screen, if the first test or screen is positive. As applied to employers which are entities of local government, this would constitute a state-mandated local program.

The bill would also specify various employee rights and employer and laboratory responsibilities relating to utilization of substance abuse testing.

(3) Under existing law, private employers regularly employing 25 or more employees are required to reasonably accommodate any employee who wishes to voluntarily enter and participate in an alcohol rehabilitation program, if this does not impose an undue hardship on the employer.

This bill would impose this requirement on public and private employers with respect to alcohol and drug rehabilitation programs. Public employers would be required to provide for alcohol and drug rehabilitation in conformity with these requirements.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Section 1300 of the Business and Professions Code is amended to read:

1300. The amount of application and license fee under this chapter shall be as follows:

(a) The application fee for a histocompatibility laboratory director's, clinical laboratory bioanalyst's, clinical chemist's, clinical microbiologist's, or clinical laboratory toxicologist's license is thirty-eight dollars ($38). This fee shall be sixty-three dollars ($63) commencing on July 1, 1983.

(b) The annual renewal fee for a histocompatibility laboratory director's, clinical laboratory bioanalyst's, clinical chemist's, clinical microbiologist's, or clinical laboratory toxicologist's license is thirty-eight dollars ($38). This fee shall be sixty-three dollars ($63) commencing on July 1, 1983.

(c) The application fee for a clinical laboratory technologist's or limited technologist's license is twenty-three dollars ($23). This fee shall be thirty-eight dollars ($38) commencing on July 1, 1983.

(d) The annual renewal fee for a clinical laboratory technologist's or limited technologist's license is fifteen dollars ($15). This fee shall be twenty-five dollars ($25) commencing on July 1, 1983.

(e) The application fee for a clinical laboratory license is ~~one hundred fifty dollars ($150); provided, however, that~~ *four hundred dollars ($400) commencing on January 1, 1988. However,* when the applicant is the state or any agency or official thereof, or a district, city, county or city and county, or an official thereof, no fee shall be required. ~~This fee shall be two hundred forty-eight dollars ($248) commencing on July 1, 1983.~~

(f) The annual renewal fee for a clinical laboratory license is ~~one hundred eighteen dollars ($118); provided, however, that~~ *three hundred fifty-five dollars ($355) commencing on January 1, 1988. However,* when the applicant is the state or any agency or official thereof, or a district, city, county, or city and county, or official thereof, no fee shall be required. ~~This fee shall be one hundred ninety-six dollars ($196) commencing on July 1, 1983.~~

(g) The application fee for a trainee's license is eight dollars ($8). This fee shall be thirteen dollars ($13) commencing on July 1, 1983.

(h) The annual renewal fee for a trainee's license is five dollars ($5). This fee shall be eight dollars ($8) commencing on July 1, 1983.

(i) The application fee for a duplicate license is three dollars ($3). This fee shall be five dollars ($5) commencing on July 1, 1983.

(j) The delinquency fee is equal to the annual renewal fee.

(k) The director may establish a fee for examinations required under this chapter. The fee shall not exceed the total cost to the department in conducting the examination.

SEC. 2. Chapter 5 (commencing with Section 11998) is added to Part 5 of Division 10.5 of the Health and Safety Code, to read:

CHAPTER 5. SUBSTANCE ABUSE TESTING

11998. This chapter shall be known and may be cited as the "Substance Abuse Testing Act of 1987."

11998.1. The Legislature finds and declares all of the following:

(a) Employers are increasingly using substance abuse testing to screen job applicants and employees.

(b) The Centers for Disease Control report finds that some of these tests may not be conducted properly. In a 1985 study, the CDC found "serious shortcomings" in the quality controls of testing laboratories.

11998.2. If an employer requests or requires a substance abuse test of any type, the results of the first test or screen, if positive, shall be confirmed by a laboratory meeting either of the following requirements:

(a) If the laboratory is located within the state, the laboratory shall be any of the following:

(1) A clinical laboratory licensed by the department under Chapter 3 (commencing with Section 1200) of Division 2 of the Business and Professions Code.

(2) A public health laboratory certified by the department under Chapter 7 (commencing with Section 1000) of Division 1.

(3) A drug analysis laboratory licensed by the department under Sections 1160-1196, inclusive, of Title 17 of the California Administrative Code.

(4) A public criminalistics laboratory. For the purposes of this paragraph, a "public criminalistics laboratory" means a laboratory operated by or under contract with a state, city, county, or other public agency, including the criminalistics laboratory of the Department of Justice, which meets both of the following requirements:

(A) The laboratory has not less than one regularly employed forensic scientist engaged in the analysis of body fluids for controlled substances.

(B) The laboratory is registered as an analytical laboratory with the federal Drug Enforcement Administration of the United States Department of Justice for the possession of all scheduled controlled substances.

(b) If the laboratory is located outside of the state, the laboratory shall either comply with the requirements of subdivision (a) or meet the requirements of the Federal Clinical Laboratories Improvement Act of 1967 (Title 42 U.S.C. Sec. 263a).

(c) No such laboratory shall report the results of any drug use test to an employer unless:

(1) The specimen was collected, transported, and tested within a documented chain-of-custody procedure adequate to establish the identity of the specimen and to protect its integrity throughout the processes of collection, transportation, and testing; and

(2) Records of the testing done and of the chain-of-custody control have been established and will be maintained, along with the remainder of the specimen tested, in such a condition and for such a period of time as is required to permit an effective challenge to the accuracy or the significance of the test result by any of the parties involved.

(d) The department shall implement regulations to ensure effective licensure of laboratories which conduct substance abuse tests of body fluids.

11998.3. No employer may take any action against an employee based on the results of a substance abuse test, nor refuse to hire a job applicant based upon the results of a substance abuse test, unless the test or screen has been confirmed as positive pursuant to Section 11998.2.

11998.4. Notwithstanding any negotiated collective bargaining agreement between an employer and his or her employees which provides for additional substance abuse testing standards, employers shall inform employees and job applicants of the testing policies in writing upon the adoption of the policy or when the employee is hired, if the policy was previously adopted.

11998.5. An employee shall have the right to request a copy of the results of a substance abuse test conducted pursuant to this chapter.

11998.6. Any sample confirmed as positive pursuant to Section 11998.2 shall be saved by the laboratory for a period of at least 90 days, notwithstanding paragraph (2) of subdivision (c) of Section 11998.2. An employee or job applicant shall have the right to retest a positive sample.

11998.7. Employers, employees, and laboratories shall keep all samples and test results confidential consistent with the requirements for the confidentiality of medical records as contained in Section 56.20 et seq. of the Civil Code.

11998.8. This chapter shall apply to private employers and to state and local entities of government.

SEC. 3. The heading of Chapter 3.7 (commencing with Section 1025) of Part 3 of Division 2 of the Labor Code is amended to read:

CHAPTER 3.7. ~~ALCOHOLIC~~ *ALCOHOL AND DRUG* REHABILITATION

SEC. 4. Section 1025 of the Labor Code is amended to read:

1025. Every *public and* private employer regularly employing 25 or more employees shall reasonably accommodate any employee who wishes to voluntarily enter and participate in an ~~alcoholic~~ *alcohol or drug* rehabilitation program, provided that this reasonable accommodation does not impose an undue hardship on the employer.

Nothing in this chapter shall be construed to prohibit an employer from refusing to hire, or discharging an employee who, because of the employee's current use of alcohol *or drugs*, is unable to perform his or her duties, or cannot perform the duties in a manner which would not endanger his or her health or safety or the health or safety of others.

SEC. 5. Section 1026 of the Labor Code is amended to read:

1026. The employer shall make reasonable efforts to safeguard the privacy of the employee as to the fact that he or she has enrolled in an ~~alcoholic~~ *alcohol or drug* rehabilitation program.

SEC. 6. Section 1027 of the Labor Code is amended to read:

1027. Nothing in this chapter shall be construed to require an employer to provide time off with pay, except that an employee may use sick leave to which he or she is entitled for the purpose of entering and participating in an ~~alcoholic~~ *alcohol or drug* rehabilitation program.

The **Chairman**. Thank you very much, Doctor.

Dr. Schuster.

STATEMENT OF CHARLES R. SCHUSTER

Dr. **Schuster**. Thank you, Mr. Chairman. I am Dr. Charles R. Schuster, the director of the National Institute on Drug Abuse, and I am accompanied today on my left by Dr. Michael Walsh, who is the director of our new Office of Workplace Initiatives, and Dr. Richard Hawks, on my right, who is the chief of our Research Technology Branch and a chemist.

We are grateful to the committee for this opportunity to discuss the Department of Health and Human Services' technical and scientific guidelines for agency drug testing programs. These, of course, were developed in accordance with the Executive Order Number 12564 issued by the President on September 15, 1986.

I would like to first of all emphasize that it is our view that the drug testing program is only one component of the federal initiative to achieve a drug-free workplace for federal employees.

The basic purpose of the federal drug program is to help substance abusing employees of the federal government to, first of all, acknowledge their problem. I would like to state that because in my years of experience in treatment programs, I know it is essential to emphasize that drug users, particularly early in their careers of drug-using, engage in great denial about the fact that they have a drug problem.

One of the hopes of a drug detection program is it allows individuals to be confronted by their drug problem at a point in time when they have not developed a habit that has caused significant devastation to their work performance, and to their relationship with their family, so that the chances of successful rehabilitation are maximized.

The goal of our program is to get people back on the job, no longer using drugs, and to discourage people who are not using drugs from starting.

Now, clearly, drug testing in the federal workforce is a sensitive area of endeavor which follows a course strewn with difficult questions of medicine, human relations, law, science, and ethics.

The Department of Health and Human Services has attempted to address these many issues. The technical guidelines underwent numerous revisions in an attempt to strike a balance between the rights and responsibilities of the federal government as an employer and the reasonable expectations of privacy and confidentiality that every federal employee deserves.

Now, let me briefly address some of the technical aspects of the drug testing. The HHS technical guidelines prescribe procedures under which urine specimens are taken in a designated collection room without observation. The collection procedure is similar to that which we have all experienced in our physician's office or in any physical examination we have taken.

Now, in order to follow the intent of the executive order—that is, allowing the individual to have privacy while providing a specimen—while at the same time ensuring the integrity of the specimen collection process, the HHS guidelines require that precautionary measures be taken to prevent substitution of a drug-free urine or dilution or adulteration of the individual's own urine specimen.

The Chairman. What kind of precautions?

Dr. Schuster. Precautions that are taken include, for example, individual must wash their hands prior to entering the collection booth. They must remove any unnecessary clothing, such as a coat, so that they cannot conceal a bag of drug-free urine.

Bluing agents would be put into the toilet bowl so that they cannot scoop water out to dilute the sample and thus adulterate it, because it would turn out to be blue. Finally, it is essential that temperature of the specimen be taken because even the most clever people would have a difficult time in getting the temperature of a substitute specimen into the range which we have specified as being acceptable.

Now, once the specimen is collected, we go on to the testing. The HHS guidelines require a two-step process in analyzing urine for the presence of abused drugs. As has been stressed here, you need both an initial screening test to separate out the truly negative specimens from those that appear to be positive, and a second confirmatory assay whenever the initial screen is positive.

It should be emphasized that only specimens that test positive on both the initial screening test and the confirmation assays are reported as positive. I think a lot of the concern and criticism regarding the accuracy and reliability of drug testing reflects the intrinsic limitations of the initial screening assays.

Any diagnostic screening technique requires a more specific assessment before any action should be initiated on the basis of it. Concerns about cross-reacting substances—that is, legal substances that produce a positive result on the screen—have principally been a problem for programs where action is taken on the basis of an initial screening test and there is no subsequent confirmation test.

The Chairman. By "subsequent," you mean testing the same urine specimen in a second round of testing?

Dr. Schuster. Yes. It is essential that the second round of tests uses a different chemical procedure.

The Chairman. Yes.

Dr. Schuster. In the case of the HHS guidelines, this is the GC-mass spec method, which my colleagues will be happy to explain to you in detail.

Now, the HHS guidelines for laboratory analysis procedures are quite rigorous. There are comprehensive requirements for internal and external quality control procedures, laboratory accreditation, and external proficiency testing. The procedures that have been specified include many safeguards to ensure the high level of accuracy and reliability required for the federal testing program.

I would like to move to the final portion of this, and one which I think is probably the most important. An essential part of the drug testing program is the final review of the results.

A positive laboratory test, even with a confirmation, does not automatically identify an employee or an applicant as an illegal drug user. Chemical tests should not be allowed to make decisions.

The guidelines require that agencies must employ a licensed physician with a knowledge of substance abuse disorders to review and interpret confirmed positive test results obtained through the agency's testing program.

In conducting this review, the medical review officer will contact the employee who yields a confirmed positive result and afford the employee the opportunity in a confidential medical setting to offer alternative medical explanations for the positive test result.

The medical officer is required to review all medical records that the employee chooses to make available when a confirmed positive test could have resulted from a legally prescribed medication.

I believe you heard previously about an individual who had been to a dentist a couple of days before and showed up with a positive result for opiates in his urine. Clearly, that would be easily taken care of by the medical review officer simply getting confirmation that the individual had been administered this drug.

Now, should any question arise as to the accuracy of the lab result, the medical review officer is authorized to order reanalysis of the original specimen. If the officer determines a legitimate medical explanation for the positive test result, no further action would be taken.

The CHAIRMAN. Say that again.

Dr. SCHUSTER. If the medical officer determines that there is a suitable alternative explanation for a positive test result, no further action is taken.

The CHAIRMAN. That is after the second test?

Dr. SCHUSTER. That is correct.

The CHAIRMAN. The burden is on the person being tested. What happens if the person is tested a second time and——

Dr. SCHUSTER. We are talking now about the single urine specimen which is collected.

The CHAIRMAN. Yes.

Dr. SCHUSTER. The initial screen is done, it is positive; it is sent for confirmation tests and the GC-mass spec comes back that it is positive. That person would be notified by the medical review officer. They would be interviewed by the medical review officer and offered the opportunity to demonstrate alternative explanations for the presence of the positive test result. For example, they might have a prescription, et cetera.

The CHAIRMAN. I understand that part. Now, you then said, though, something about a further test.

Dr. SCHUSTER. If the medical review officer determines that there is a legitimate medical explanation for the positive test result—they have a prescription—then no action is taken against that employee.

So this ensures the fact that if there is a suitable explanation for the actual presence—this is not a case in which the test result is spurious. Actually, the metabolite of the drug is there, but there is a good explanation for it.

As Dr. Walsh points out, this is before it goes to any agency administrator, and that is why I say no action is taken. The action would be to refer to the agency administrator.

So, in summary, it is our feeling that in developing these technical and scientific guidelines for federal drug testing programs, the Department of Health and Human Services has made every effort to protect the rights of federal employees while carrying out the Executive order of the President.

We believe that the drug testing program can have a significant, positive effect in reaching our goal of a drug-free federal workplace.

I would be happy to answer any questions, and my colleagues, who are more technically expert than I, would be happy to do so, also.

[The statement follows:]

STATEMENT

BY

CHARLES R. SCHUSTER, Ph.D.
DIRECTOR
NATIONAL INSTITUTE ON DRUG ABUSE

Mr. Chairman and members of the Committee, I am Dr. Charles R. Schuster, Director of the National Institute on Drug Abuse. We are grateful to the Subcommittee for this opportunity to discuss the Department of Health and Human Services' (HHS) technical and scientific guidelines for agency drug testing programs, developed in accordance with Executive Order No. 12564 that was issued by the President on September 15, 1986. In addition to ordering the development of technical and scientific guidelines for agency drug testing programs, the Executive Order directed that such programs insure individual privacy of employees in the implementation of such programs and that HHS assure the accuracy and reliability of the procedures and the laboratory techniques.

Let me note here that the basic purpose of the Federal Drug Program is to help substance abusing employees of the Federal Government to enter into treatment, provide them with the assistance they need, and get them back on the job. We want to get employees who use drugs to stop, and we want to encourage other employees to avoid the dangers of drug abuse.

The Secretary of HHS requested that the Alcohol, Drug Abuse, and Mental Health Administration and, specifically, the National Institute on Drug Abuse, draft these guidelines. The Secretary further directed that the guidelines be reasonable and appropriate and that adequate safeguards be provided for both employees and the agency. Therefore, from the outset, the goal of the Department of Health and Human Services was to develop policies and procedures which would require that Federal agency drug testing programs must be conducted with the highest regard for protecting the rights of Federal employees.

Development of the Guidelines

The National Institute on Drug Abuse convened a task force involving all levels of the Department of Health and Human Services to draft the initial version of the guidelines. This draft was reviewed by the Public Health Service and recommendations were made by the other health agencies including: the Food and Drug Administration, the National Institutes of Health, the Health Resources and Services Administration, and the Centers for Disease Control. Subsequent review at the Department level incorporated recommendations from other departmental agencies. In addition to input from all levels within the Department of Health and Human Services, the development effort was coordinated with the Department of Justice, Department of Defense, Office of Personnel Management, and the White House Office of Drug Abuse Policy.

Clearly, drug testing in the Federal workforce is a sensitive area of endeavor which follows a course strewn with difficult questions of medicine, human relations, law, science, and ethics. The Department of Health and Human Services has addressed the many issues involved. These guidelines underwent numerous revisions in an attempt to strike a balance between the rights and responsibilities of the Federal government with the reasonable expectations of privacy and confidentiality that every Federal employee deserves.

We at HHS feel that we have met the goals set out by the President and the Secretary, Health and Human Services to develop reasonable and appropriate procedures which respect the individual rights and civil liberties of all Federal employees.

Technical Aspects of Drug Testing

The HHS guidelines prescribe procedures under which each urine specimen is taken in a designated collection room without observation. The collection procedure is similar to what we all have experienced in any physical examination, or visit to our personal physician's office. Practical experience with drug testing has shown that specimen collection is the most vulnerable part of any drug testing program. Difficulties with chain of custody procedures frequently occur at the point of collection. It is absolutely essential to be able to document that the specimen in question came from the Federal employee identified on the label and the supporting documents. In addition, for any drug detection program to be credible, precautions must be taken to assure that a fresh urine specimen is collected that has not been substituted, adulterated, or diluted with any liquid.

The best method of assuring the chain of custody and preventing specimen substitution or adulteration is observation of the specimen collection. Witnessed collection is the method that the Department of Defense has used exclusively since the inception of its drug testing program in 1981, and it is widely used in the private sector by many of the largest corporations in America. Executive Order No. 12564 requires that procedures must allow individual privacy unless the agency has reason to believe that a particular individual may alter or substitute the specimen to be provided.

In order to follow the intent of the Executive Order, that is, allowing individual privacy while providing a specimen, while maintaining the integrity of the specimen collection process, the HHS Guidelines require that two precautionary measures be taken to prevent substitution, dilution or adulteration of specimens: (1) that bluing agents be placed in the toilet tanks and in the bowl so that the reservoir of water remains blue and that there be no other source of water in the enclosure where urination occurs. This precaution is taken to prevent the dilution of the specimen by collecting water from the toilet itself and adding it to the specimen. The dye in the water would change the specimen color and specimen dilution can be easily detected. Past experience with drug treatment centers indicate that drug abusers will use the toilet water to dilute their specimen to avoid detection of their drug use; and (2) immediately after collection, the collection site personnel are required to measure the temperature of the specimen. Human urine normally has a temperature which is quite close to body temperature, varying from it only by a maximum of a few degrees. Specimens outside this temperature range give rise to reasonable suspicion that adulteration or substitution has occurred.

Dr. Bowen has stated that in his view, "These guidelines provide the greatest possible privacy for the individual, consistency in testing procedures, security for specimens, and accuracy in laboratory results."

Laboratory Analysis Procedures

The HHS Guidelines require a two step process in analyzing urine for abused drugs. An initial screening test separates the truly negative specimens from those that appear to be positive. The guidelines require a confirmatory assay whenever the initial screen is positive. When two different assays that operate on different chemical principles both give a positive result, the possibility that a "cross-reacting" substance or a methodological problem could have created a positive result is minimized.

The HHS Guidelines require that only immunoassay tests approved by the Food and Drug Administration be used as the initial screening assay, and that the confirmation of an initial positive be accomplished by the gas chromatography/mass spectrometry (GC/MS) method. Specimens found negative on the screen are reported as negative and are discarded. Specimens found positive on the screen and negative on confirmation are reported as negative and are discarded. Only specimens that test positive on both the screen and confirmation assays are reported as positive. Specimens confirmed positive shall be retained and placed in properly secured long-term frozen storage for at least 365 days. Within this 365 day period, an agency may request that the laboratory retain the specimen for an additional period of time. This ensures that the urine specimen will be available for a possible retest during any administrative or disciplinary proceeding.

Most of the concern and criticism regarding the accuracy and reliability of drug testing, in fact, reflects the intrinsic limitations of the initial screening assays. Any diagnostic screening technique, by definition, requires a more specific assessment before treatment is initiated. Concerns about cross-reacting substances, that is, legal substances that produce a positive result on a screen, have principally been a problem for programs where action is taken on the basis of an initial screening test and there is no confirmation test. As Dr. Miike, from the Congressional Office of Technology Assessment, has testified previously before a committee of the House of Representatives, "There are intrinsic limitations for drug screening tests and errors are inevitable from other substances in the urine and from laboratory performance errors, especially in mass screening programs. However, when positive results from the screening tests are confirmed with a specific test, such as, GC/MS the results are highly reliable and difficult to dispute."

It is the position of the Department of Health and Human Services that positive urinalysis results should always be confirmed by an alternate method from that used for the initial screen, and at this time the GC/MS method is the only authorized technique.

The guidelines for laboratory analysis procedures are quite rigorous. There are comprehensive requirements for internal and external quality control procedures, laboratory accreditation, and external proficiency testing. The procedures that have been specified in the Technical and Scientific Guidelines for Federal Drug Testing Programs are appropriate and reasonable and include many safeguards to ensure the high level of accuracy and reliability required for the Federal testing program.

Reporting and Review of Test Results

An essential part of the drug testing program is the final review of the results. A positive laboratory test result does not automatically identify an employee or an applicant as an illegal drug user. The guidelines require that agencies must employ a licensed physician with knowledge of substance abuse disorders. The role of this "Medical Review Officer" is to review and interpret confirmed positive test results obtained through the agency's testing program. This individual will serve as the interface between the laboratory and the agency administrative personnel. In conducting the review, the Medical Review Officer (MRO) will contact the employee who yields a confirmed positive result and afford the employee the opportunity in a confidential medical setting to offer alternate medical explanations for the positive test result. The MRO is required to review all medical records that the employee chooses to make available when a confirmed positive test could have resulted from legally prescribed medication. Should any question arise as to the veracity of the laboratory result, the MRO is authorized to order a reanalysis of the original specimen. If the MRO determines a legitimate medical explanation for the positive test result, no further action will be taken. If the MRO verifies the laboratory result indicating that illicit drug use has occurred the case will be referred, as determined by agency policy, to the employee assistance program or administrative office for disposition.

In summary, in developing the Technical and Scientific Guidelines for Federal Drug Testing Programs, the Department of Health and Human Services has made every effort to protect the rights of Federal employees while carrying out the Executive Order of the President.

The **Chairman**. Thank you.

Dr. Morgan.

STATEMENT OF JOHN P. MORGAN

Dr. **Morgan**. Thank you. It is a pleasure to be here. My name is John Morgan. I am professor of pharmacology and Director of the Pharmacology Program at the City University of New York Medical School. I am also a physician trained as a clinical pharmacologist, and for the past 15 years most of my interest has been in the pharmacology of misused drugs.

In 1983, somewhat against my will, I became involved in many of the arguments that have been presented here today; that is, the issue of what is the place of urine testing, particularly the testing of unimpaired people, in the workplace.

Like others, I have filed a statement and I will make only a brief commentary highlighting some of those points, and since I am the last speaker I can refer back to the mistakes others have made.

It is interesting that we almost finished until Dr. Schuster talked about urine collection. The problems with any testing program begin with urine collection and, in fact, none of the solutions offered here today come close to approaching the problem of the collection of the sample.

The savvy drug user will have learned to have switched urines or to have brought in a drug-free urine, and can conceal it on himself, keeping it warm or having warmed it just before he came into the room, unless he is carefully strip-searched.

Probably more importantly, the adulteration issue is a critical one. You have heard most people here today talk about using EMIT screening. EMIT requires a very fastidious chemical environment.

Dr. Richard Schwartz of Vienna, VA, has published a paper in which he showed the EMIT test may be disrupted by the addition of a small amount of table salt, liquid hand soap, household detergent, household bleach, or a drop of blood or two.

The federal guidelines, pursuant to the Executive order, will not answer that problem. The solution to that problem is close observation. I am talking about—I am not saying this to provoke anyone, but I am talking about body to the bottle. I am talking about someone's eyes and face being approximately 6 to 8 inches from the genital apparatus.

If that operation is carried out, then I think you can be fairly sure that you have an honestly offered urine specimen which you can test. Let me quickly add that I am not calling for that kind of intrusiveness in anyone, particularly in unimpaired people.

But because no one talks about that issue very specifically, I have chosen to do so.

The **Chairman**. I am not being smart. Why 6 to 8 inches? [Laughter.]

Seriously.

Dr. **Morgan**. Unless one observes the flow of urine from the body to the bottle, then one can be beaten by the savvy drug user, and will be beaten consistently. I choose 6 to 8 inches because that seems to me to be pretty close.

The CHAIRMAN. Yes. [Laughter.]

Dr. MORGAN. Twelve to fifteen might be okay.

The CHAIRMAN. I was not being smart when I asked.

Dr. MORGAN. And I am not being smart when I am saying so. I am talking about observation of the urinary stream from the body to the bottle, and that is what is required to make sure that there is no switching and there is no adulteration.

In fact, some of the events described by Dr. Schuster by putting either a bluing material into the toilet or, as sometimes is done in the workplace, by not allowing the urine specimen to be collected in a room where there is running water or where there can be hand soap—signals that we may face a generation of workers who have spent time in a workplace where there is a sign that says workers are forbidden to wash their hands before going back to the job.

The second issue that I want to talk about has to do with the screening tests. Almost everything I wanted to say has been said before. It is true that if a workplace or a federal agency carries out the two-step testing in which a screening test is used and a GC/mass spec is used to confirm, the result will be reliable. Incidentally, I used to enjoy going to parties and hearings and other places where I was the only person in the room who could say gas chromatography-mass spectrometry, but that is no longer likely.

The test, although easily pronounced, is not easily carried out. In fact, it is, as the EMIT test, fastidious; requiring very careful attention and very careful operator commitment and skill.

I do not believe it is a one hundred-percent effective test, but there is a more important issue; the screening test may give a result which is a false positive or which is the presence of a cross-reactant.

The GC/MS will not always answer that question. Earlier today, someone referred to the issue of a codeine specimen. Even if the individual had taken codeine and that was subject to an EMIT and then a GC/mass spec, that would not have answered the question as to whether that was a legal consumption or not.

Heroin, morphine and codeine are all metabolized to the same morphine residue that the GC/MS measures. So GC/mass spectrometry, although it will tell you what is there, will not tell you whether the individual consumed an illegal drug or not.

The CHAIRMAN. But did not Dr. Schuster suggest that—let us assume that it would come up with the results you have suggested, and I certainly do not dispute that. He suggested that at least the federal program that is being put forward is that if the explanation were made and shown that they were taking codeine, the presumption would be that they were taking codeine and not heroin.

Dr. MORGAN. That is correct, and I think that is probably what would happen in the program that Dr. Schuster has described. I cannot be sure that that is what would happen elsewhere. There is a more important issue. As a condition of employment, an individual is now forced to reveal information that traditionally in human society has been a secret between him and his healer; that is, the medication that I take that my physician chooses to give me has been my business unless that medication has impaired me to the point that someone can tell.

We are now talking about individuals taking phenobarbital and benzodiazepines and codeine and a variety of other substances.

The **Chairman**. I think you have now raised a serious constitutional issue, in my view, which is separate. I would like you to continue, but I think you are right, but it is a very different issue.

Dr. **Morgan**. Let me move on, then, to the issue of the laboratory. Dr. Miike has helped me very much by making comments which I think are not only critical, but his document also makes those comments.

I do wish to say a couple of words about the laboratory issue. The NIDA guidelines which Dr. Schuster has just described are indeed admirable and may help a great deal. However, the landscape is already littered with bodies of people who were not helped in the last 3 to 4 to 5 years of the misapplication of this technology in the workplace.

There are people who have lost their jobs because of the high false positive rate of screening tests because of non-confirmation. I would like to point out to the room that 1,500 New York City workers per day are tested by the New York State drug abuse laboratory without a GC/MS confirmation.

The laboratory continues to refuse to implement GC/MS confirmation, and Dr. Schuster is not able to force them to do so, nor have those of us who have criticized them in New York. This is also true of inmates in the New York State prison system who are disciplined and punished on the basis of an unconfirmed EMIT test.

The **Chairman**. Let me stop you there.

Dr. Schuster, would you rely on any test that tested positive on the screen to not have the second series of tests taken?

Dr. **Schuster**. No, sir.

The **Chairman**. You would not?

Dr. **Schuster**. No.

Dr. **Morgan**. The confirmation issue is critical, and I do not have to talk about it because so many other people have done so. They are talking about confirmation of one test by another test.

I think it is time for us to talk about confirmation of one laboratory by another laboratory. The American laboratory can no more handle the volume of tests being given to it today, much less the 1.8 million workers, than it can levitate.

Every single survey, be it the CDC survey, be it the survey that was referred to by a Washington reporter on WJLA-TV a couple of weeks ago, has indicated that laboratories by and large perform miserably.

Specifically, over 80 percent of specimens sent around to six D.C. commercial laboratories—over 80 percent of the specimens were missed. This was a high false negative issue. The false positive issue was not very thoroughly explored.

The American laboratory system cannot handle this. We are beset with a technology that is inadequate and inapplicable to this situation and I fear for us.

The last point I wish to make is a point which has been made briefly today, but I want to emphasize it because it is indeed the critical point. If there were three important problems to comment on, they are a test is not indicative of impairment or intoxication, a test is not indicative of impairment or intoxication, and a test is not indicative of impairment or intoxication.

These tests measure inactive drug metabolite excreted, depending upon the drug, for days, weeks or months after, and the application of these tests in unimpaired people, in essence, constitutes surveillance. It means I am going to look at you and your past life to see if you may have committed a crime or consumed an illegal drug.

Indeed, it may bring about some of the positive results that these gentlemen have talked about, but it strikes me that it is as justified for a company to do this to its workers as it would be for the workers to send around operatives to management homes to look for evidence of insider trading or expense account fiddling.

In conclusion, George Bernard Shaw said to every difficult and complex problem, there is a simple answer and it is wrong, and that is what urine testing of unimpaired workers represents in the United States today.

Thank you.

[The statement follows:]

TESTIMONY OF JOHN P. MORGAN, M.D.
9 April, 1987
U.S. Senate Committee on the Judiciary

Introduction

The technical ability to measure small amounts of chemicals in bodily fluids has appreciably advanced. However, the application of that technology in mass screening programs in the workplace has generated more problems than it has solved. The use of these tests, and their interpretation, in unimpaired people represents an important misapplication.

Sample Collection

The problems begin with sample collection. The savvy drug user will have learned the various techniques of substituting someone else's (presumably clean) urine or even purchased a mail order sample. Additionally, an authentic sample may be treated with a variety of simple contaminants (table salt, liquid soap, household bleach or a drop of blood) which will disrupt the fastidious chemical requirements of some tests. All of these issues of switching and doctoring simply mean that the urinary stream must be observed from the body to the bottle. The observer must have his/her eyes within inches of the genitalia. The passage of urine for testing must be accompanied by humiliating observation. I hasten to add that I do not support such intrusiveness. The currently unimplemented executive order imposing testing on certain Federal employees promises unobserved urine collection -- an understandable compromise which will probably insure that knowledgeable drug users will beat the test.

Screening Tests

Under most circumstances, the urine specimen will initially be examined by a screening test. Screening tests are generally sensitive, cheap, easily applied to many specimens in a short period of time and non-specific. This non-specificity means that the tests will be reported positive often because other substances including legal drugs are present and surprisingly often when no drugs are present at all. All screening tests are beset with a relatively high false-positive rate. When a lower sensitivity test is chosen to adjust for the high false-positive rate, then the test begins to have a high false-negative rate.

If one decides to screen large numbers of people, all positives must be confirmed by specific tests using different methodological approaches. This has come to mean that gas chomatography-mass spectrometry (GC-MS) is used as a confirmation. GS-MS is costly and requires significant laboratory skill and dedication. The high rate of screening false-positives requires that a blanket of confidentiality protect the individual until the confirmation test is carried out. If the screening tests have a 10-15 percent false-positive rate (and that may be a low estimate) many positives will obviously be false positives. Data indicate that testing in the work-place (whether applied randomly or "for cause") yields a low positive rate, certainly less than 5% (most for marijuana metabolite). Many or even most screening positives will be false positives because of the employment of tests whose error rate exceeds the true incidence of what they purport to measure.

The Tests

There are three widely employed screening tests: thin-layer chromatography (TLC), radioimmunoassay (RIA) and enzyme immunoassay (EIA). The latter two depend upon immune chemistry. Both employ antibodies prepared to react to drugs of interest or their chemical relatives. The interaction of these antibodies with urinary chemicals is detected by different methods in the two immunoassay systems. In neither system is the antibody specific and the reaction occurs to a class of chemicals. The opioid screen will not only react with heroin but morphine, methadone, codeine and others including the urinary opioid residue resultant from eating one or two poppy-seed rolls. The amphetamine screen will react with over-the-counter nasal decongestants ephedrine and phenylpropanolamine sold in at least 200 medicinal products in the United States. The benzodiazepine antibody will react with the residue of the most popular prescription sleeping pill in the United States and the barbiturate screen will detect phenobarbital, still widely employed in epilepsy.

The TLC method although occasionally put forward in response to criticisms of the widely employed EIA, was replaced because of its inability to detect low concentrations of a number of drugs. The EIA is very sensitive and can respond to extremely low concentrations of some compounds but this is a mixed blessing. The most sensitive EIA for marijuana metabolite will detect concentrations of drug which may have been acquired by passive exposure. I believe that the recent emphasis on the high cut-off EIA (the EMIT 100) has grown out of the passive exposure problem. However, the EMIT 100 probably has a 40% false negative rate in that it will miss 40% of individuals who have smoked marijuana in the previous 48 hours.

The EIA for marijuana metabolite had been widely employed for six years before someone learned that it gave false-positives in the presence of certain very widely employed anti-inflammatory drugs such as ibuprofen.

Laboratory Error

Many enthusiasts for testing have now come to acknowledge the need for testing confirmation by a different test. It is now time to acknowledge the need for laboratory confirmation. A positive test in one laboratory needs to be confirmed in another laboratory when a livelihood and a life is on the line. The issues of laboratory error and poor quality control are gigantic. Laboratories are being flooded with urine and lucrative contracts. There is ample evidence that most work is poorly done. A Center for Disease Control voluntary program revealed a laboratory error rate ranging from 11 - 100% when blind samples were sent as if they originated from a treatment program. A Washington, D.C. television reporter has recently documented a 70% error rate on a group of specimens sent blindly to 6 D.C. area commercial laboratories. The Federal Government has recently withdrawn work from its own FAA laboratory because of a failure to document work performed there. Physicians have long known that critical decisions could not be based on laboratory work alone. Surely someone could have realized that such caution was more important in workplace urine testing.

Impairment

The most important issue remains. The drugs of interest essentially do not appear unchanged in human urine. They appear as inactive metabolites--inactive residue. These metabolites result from chemical changes which promote the drug's excretion into urine. This means that no urine detection system (even one using the best confirmation) can comment on whether the test correlated with behavior. Urine testing cannot answer the question often cited to justify its use--whether the individual was drug-impaired when the urine was collected. The prolonged excretion of metabolites complicates this further. Metabolite excretion may persist for days or even weeks. This makes urine testing of unimpaired workers a kind of surveillance in which evidence of improper or even illegal behavior in the past is looked for in a largely innocent population--American workers. It would be as justified for the union to send secret operatives into management homes and hotel rooms looking for evidence of insider trading or expense account fiddling.

Conclusion

Testing of unimpaired workers is expensive folly. The evaluation of apparently impaired workers needs to reside where it traditionally has--with health workers. Such workers may choose to use a variety of laboratory tests to help in diagnostic thinking. They do not need management mandates to choose the right tests.

Mass urine testing in response to the American drug problem is humiliating and unproductive. Further, the technology to carry out this dubious mission is inadequate and misapplied in this setting. It represents at best a kind of drug abuse abuse.

John P Morgan MD

The CHAIRMAN. Thank you very much, Doctor. My favorite quote of George Bernard Shaw is, you know, he sent a letter to Winston Churchill once inviting him to opening night of his play. He said, please come and bring a friend, if you have one. And the Prime Minister sent back a note saying, cannot make it tonight; would love tickets for tomorrow night if there is one. [Laughter.]

I would like to begin with you, Dr. Morgan, if I may, and ask you, there is a much greater concern on the accuracy side, leaving aside the constitutional questions for a minute, of false positive versus false negative, obviously.

Dr. MORGAN. Yes, sir.

The CHAIRMAN. Would you discuss with me a little more, and then I would ask your colleagues to comment on your answer, if they would, the degree to which you suggest that assuming there is a laboratory that would be certified by whatever reasonable standards—and I do not know what they would be—whatever reasonable standards should be imposed to determine that they have the trained personnel and facilities to conduct the tests accurately, if they, in fact, have the will to do so, and after the screening the second series of tests is conducted, what error rate are we talking about under the best of conditions?

Dr. MORGAN. We are talking about a very low error rate. Dr. Arthur McBay, who is commonly quoted in this area, I think has given a more realistic assessment of GC/mass spec in terms of marijuana metabolite, which turns out to be, in terms of volume, the only important drug being tested for.

He thinks GC/mass spectrometry may give a 95-percent accuracy rate for marijuana metabolite. I think that is pretty good. In fact, I think that is better than we do with most clinical laboratory testing. I do not think that is good enough for the forensic application that it is being asked to apply to now. But the error rate is undeniably low with both tests applied in a good laboratory.

The CHAIRMAN. Would any of you like to comment on that?

Dr. MIIKE. I would guess that the majority of errors would be in missing things. In other words, the preponderance of errors would be in false negatives.

If errors are going to be present, it is mostly going to be that they are not going to confirm positive screening tests.

The CHAIRMAN. They are going to not confirm? I am sorry. I am not hearing you, Doctor. Pull the microphone closer to you, if you will, please.

Dr. MIIKE. What I am saying is that in the GC/MS test, in the small numbers of errors that may occur in that, I would say that the great proportion of those errors would be on the side of saying that it was not present rather than it was present.

The CHAIRMAN. I see what you are saying.

Dr. Schuster, or one of your colleagues?

Dr. HAWKS. I would doubt that Dr. McBay was referring to 5-percent false positives, Dr. Morgan. As Dr. Miike said, I think maybe that would refer to 5 percent misses, but I think any program that produced 5 percent false positive errors after going through the two-step procedure of screening and confirmation by GC/mass would be a pretty sloppy program. It would be hard to make that level of error with a GC/mass spec confirmation.

Dr. **Morgan**. Well, I would agree that the machine is that good; as everyone refers to it, the state of the art. But we are talking about the real world. I will hold on to my 5-percent figure. I am no more sanguine than that because these are machines being run by humans.

If there is a strongly positive specimen, the entire apparatus needs to be thoroughly flushed out before the next one is run, and I have seen laboratories that do not do that routinely.

Again, I do not wish to enter an argument here because GC/mass spec is the best we have got. The question I am raising is whether it is good enough for this forensic application.

Mr. **Hawks**. Let me clarify a little bit, then. An improperly used GC/mass spec is going to give you errors. I would agree they are frequently improperly used. They are not simple machines.

If used correctly, they provide the best evidence to be reviewed by outside experts as well as the lab itself which gets the result as to whether this result is right or not. They have to be used properly at the right cut-off levels, and so forth.

The best example I think we can give—and we attempted as much as possible to develop our standards based on what I will call the DOD model—I think the best example we can use is to look at least at the last 3 or 4 years of the Department of Defense program where they mandate radioimmunoassay, followed by GC/mass spec confirmation, of any presumptive positives that result from the first screen.

In that program they have literally run tens of thousands of blank samples and spiked samples. These are known samples, not the ones from personnel in DOD, and they have not reported, at least, a false positive, and they have a fairly rigorous program for blind testing that is run by the AFIP, Armed Forces Institute of Pathology, at Walter Reed. Now, they are obviously running the machinery correctly.

The **Chairman**. What is the cost of running that kind or program? Do you have any idea?

Mr. **Hawks**. Well, the actual cost per sample for the labor, and this is mostly civilians who are technicians in the laboratory, and the cost of reagents for both assays is about, I think, $15 or $20 a sample.

I have heard, also, that if you take the total cost of the military program and divide by the total number of samples, it is about $100 a sample, but there you are figuring in the education costs, the outside quality assurance program, the buildings, and everything else.

Dr. **Morgan**. Again, I agree with Dr. Hawks; he is exactly correct. I would like to point out a couple of things. The Department of Defense decided to use the radioimmunoassay and they use a 100 nanogram per ML cut-off on the screening test. That is quite a high cut-off, and one of the things it does is protect against the wobbling at low levels, the false positive rate associated with lower cut-offs.

It actually is a little bit of a set-up, and if you use radioimmunoassay and a 100 nanogram per ML cut-off, it is true that you have very few false positives.

The **Chairman**. I am having trouble understanding you.

Dr. MORGAN. Okay. Dr. Hawks referred to cut-off points; that is, below this I shall say there is nothing there; above this, I shall say it is a positive.

The CHAIRMAN. Yes.

Dr. MORGAN. The Department of Defense program uses 100 nanograms per ML of marijuana metabolite as their cut-off point.

The CHAIRMAN. Right.

Dr. MORGAN. In other words, if it comes back at 89, that is an innocent individual.

The CHAIRMAN. Correct.

Dr. MORGAN. OK. Now, if you use 100 nanograms per ML—and, actually, I tend to support that as a reasonable cut-off under some circumstances. You probably have a 40-percent false negative rate, too; that is, individuals who smoked marijuana in the 48 hours before that test, 40 percent of them will be below the 100 nanograms.

So the fact that the DOD can report such good numbers is, in part, a set-up.

The CHAIRMAN. What do you mean by set-up?

Dr. MORGAN. It is easy, if you use the 100 nanogram per ML cut-off, to have a 100-percent confirmation rate.

The CHAIRMAN. All right. Now, let me ask you, is there a cut-off rate proposed for marijuana or any other drug that would be tested for that would be grounds for dismissal or grounds for reporting to the supervisors in the program being proposed for the federal workforce?

Dr. WALSH. All of the cut-off levels are conservative levels, as Dr. Morgan describes as safe levels. What we have tried to do, is to balance out the state of the art in terms of the technology and all kinds of possible ways in which the drug could get into the system.

The CHAIRMAN. For example, on marijuana do you use the same standard that the Defense Department uses?

Dr. WALSH. Yes, sir, we do. In fact, what we have tried to do is set a conservative level because the basic underlying philosophy of this program is not catch people. We are trying to encourage people to stop using drugs, if they do use drugs, and to get them into treatment programs.

I would like to comment also on a couple of points that Dr. Morgan made. We, too, have concerns about some of the laboratories that are offering services in this country. We feel, that in the Channel 7 show that Dr. Morgan mentioned, that the tests that were used are inappropriate for use in making employment decisions.

There are a variety of different kinds of methodological techniques available for testing biological specimens for drugs. If you are testing your child to see if he or she has a fever or not, it is analogous. There are a number of different tests available.

All of us have a readily available measuring device (i.e, your hand), and if you are pretty good at it you can tell whether your child has a fever or not. If you are not quite sure, then you go to the next level and you might pull out a mercury thermometer.

Again, that is a pretty good device, but you have to hold it up to the light and you have to manipulate it in order to read it. If you are very sophisticated, you go out buy one of these new digital thermometers that the pediatricians use, one which beeps when the temperature is stabilized and you can directly read right from the instrument.

I believe this is a good analogy to what is available in terms of the different kinds of drug assays. The Federal guidelines specify required assays, and a two-step testing process through which we can achieve very close to 100 percent accuracy.

Again, as Dr. Morgan mentioned, whenever you have humans involved in the system, you are transcribing data, you are transforming data in the collection process and errors can occur. That is why we provided the safeguard of the medical review officer.

We do not anticipate many confrontations with the medical review officer. In practice and in our experience in working with major corporations and small businesses around the country, 98 percent of the time that the medical officer confronts the employee, the employee says, "yes, you have got me, sir; it was the first time I ever used it and I will not do it again."

It is in a very small percentage of the cases where the argument is made that the test was wrong; I did not do it. In that case, we have authorized the medical officer a number of different options to follow through.

The CHAIRMAN. Is there any regime for testing short of what you are describing that you, Dr. Schuster, and your colleagues would say would present enough certainty to allow a conclusion to be reached that a person should not be hired or should be dismissed?

Dr. SCHUSTER. If you are asking whether or not the second step has to be a GC/mass spec method——

The CHAIRMAN. No; I am asking more than that. I am asking, precisely what you have set forward as the conditions upon which you are testing, including allowing the bottom to be higher than showing zero substance in the urine—every detail of your test—I assume the reason you have done it is in order to be able to try to be as fair as you can.

Dr. SCHUSTER. Correct.

The CHAIRMAN. In your opinion or the opinion of your colleagues, can any system short of the system that you have put forward, including the safeguards you included, be sufficiently accurate to, in your opinion, justify the refusal to hire or the dismissal of an employee

Dr. SCHUSTER. I can only say that after working on these guidelines, consulting with all the other agencies, consulting with private industry, as Dr. Walsh alluded to, that it is our opinion that in order to make these kinds of decisions, these are the safeguards that are essential.

The CHAIRMAN. Now, just for the record, because we do not have it in the record—it may be in your statements, but some references are made—I imagine that a television station has never been referred to as much in a hearing as it has here. As a matter of fact, they are looking at us right now, I think. I thought I saw a seven on the side of that camera.

In January of this year Channel 7 in Washington sent—this is just to give you one example and so we have it for the record, so people know what we are talking about here—sent 70 spiked urine samples to seven different commercial laboratories in the Washington area.

Each laboratory received samples prepared ostensibly for pre-employment purposes. The labs were private and some were members of the national chain engaged in drug testing contracts for many of the Fortune 500 companies.

The content of each specimen was professionally prepared by experts for Channel 7, but the content was known only to the preparer. In one case, dog urine was sent; in another case, a person was fed poppy seeds and tested positive for morphine.

Incidentally, the dog got the job; the dog was hired. [Laughter.]

The bottom line was, as Dr. Morgan pointed out, that the error rate—not testing positive, but the error rate was something like 80, 82 percent of these tests were incorrectly analyzed.

Last week, we learned that the drug tests of the Conrail crew—this is not Channel 7's report now, but the drug tests of the Conrail crew may have been flawed by "procedural irregularities." The Department of Transportation may be investigating the lab used by the Federal Aviation Administration.

My real question to you, Dr. Schuster—and I think you have been very forthcoming with us here and I do not see a lot of disagreement on the scientific accuracy of the tests, were they administered as they should be administered.

Specifically, what are you all doing to improve the accuracy and reliability as it relates to the laboratories you choose? I mean, we are talking about a lot of tests. Who is going to do all these tests?

Mr. SCHUSTER. Well, let me turn this question over to one of my colleagues. I would simply say, sir, that we are attempting right now to develop accreditation procedures which would be voluntary on the part of testing laboratories, and the details of these my colleagues can explain.

The CHAIRMAN. Why voluntary? I read the details because you have submitted them to our staff beforehand, if I am not mistaken.

Mr. SCHUSTER. Correct.

The CHAIRMAN. But why voluntary; why not mandatory?

Mr. SCHUSTER. I will let Dr. Walsh take this question.

The CHAIRMAN. All right, Doctor.

Dr. WALSH. Well, number one, the National Institute on Drug Abuse does not have any regulatory authority. About two years ago, Dr. Hawks convened a group of all of the regulatory agencies of the Federal——

The CHAIRMAN. I am not being smart. Why do you not ask us for it?

Dr. WALSH. Well, what I would like to explain is that we brought in all of the regulatory agencies of the Federal Government to try to get a sense of, if the Federal Government were to regulate this industry, where the appropriate regulatory authority should be delegated and how best to regulate this industry.

The sense at that time was to develop laboratory accreditation standards and then to require that agencies of the Federal Government only buy services from accredited laboratories. We felt this process would generate the level of quality that is required for making these kinds of decisions.

We also felt that because of the litigation that ensues when any employee is erroneously accused of drug use that the private sector would follow suit and also only buy services from accredited laboratories.

Therefore, we felt we could achieve the desired end point without involving the federal government in regulating another industry.

The **Chairman**. Well, I must tell you all—and I do not want to keep you all; I am trespassing on your time too much, but one of the things that I believe your program is designed to do is to not catch people. I do not think you are on a witch hunt; I am not suggesting that.

I think you professionals have attempted to deal with that concern which, by the way, I think is the intent of some on my side of the bench and some in your administration, or our administration or the administration, okay?

Having said that, I do not think that is your intent, and I am not being solicitous. But it seems to me that we have to understand that once this committee and this Congress signs off on, if they were to—and I must tell you I am very reluctant to, but if we were to sign off on this procedure, I think that that will send a message across America that everybody should be in this business of doing what you all are doing.

You will have everybody from the—I am not being facetious—from the mom-and-pop operation straight through to the Fortune 500 companies deciding that this is their way to get into the act with their employees.

I am worried that we will be sending the message that it is possible to do, assuming we got by the constitutional questions, a very complicated procedure; not complicated in the sense that it is so—it is not like you are making rockets, but it is complicated in that there are certain standards and procedures that should be met.

All the panels that have been here so far have acknowledged that the universe of labs does not exist that meets those standards to, in fact, accommodate what is presently the requirement of accurate testing going on. If this gets large, as it could very rapidly, we may be putting the cart before the horse.

Am I making any sense? Do you understand what concern? I do not ask you to accept it. I just want you to know what my genuine concern is. I also am quite frankly concerned that as a matter of constitutional principle, which we get to in the next panel, I have been attempting to deal with illegal drug use in this country for 9 years by doing everything from increasing efforts in interdiction to money for education and treatment. So I am very sympathetic to the suggestion you all have, if we could do it fairly.

But I wonder whether or not it is an employer's right, in an area where there cannot be a demonstration that there is a national security interest or a public safety concern, to know more about the private life of an individual as to whether or not they are consuming a legally-prescribed drug.

I wonder whether that is anybody's right to know. I wonder how far that goes. I wonder if I am an epileptic and I am not in a—I wonder how much discrimination we would generate along the lines that we have gone way out of our way to protect.

I wonder if you all could comment on that concern of mine.

Dr. Walsh. Yes, sir. I think it is clearly a concern around the country, and I would like to assure the Chairman that in the development of the Executive order, that was clearly a very important consideration, and that is why the Executive order limited the federal drug testing program to drugs that are listed in the Controlled Substances Act under Schedules I and II.

The **Chairman.** But do you not find out about other drugs, though? That is my point. I mean, I am not saying you are looking for that, but you get the test back and the test comes back and says—what does it say? Does it come back and say it does not test positive for these drugs, or tests positive, and it turns out after the explanation is given that, oh, yes, I understand; the reason you tested positive is because you are on this prescribed drug? That is possible, right?

Dr. Walsh. Well, as the guidelines were perking up through the Department of Health and Human Services, the first stop in the line was the Public Health Service. All of the agency heads, the Assistant Secretary for Health, the Surgeon General, the Commissioners of FDA, CDC, and so on, have all been primary health care physicians at one point in their career.

This was a major concern that they had, and that is why the medical review officer is the place, in a confidential medical setting, that that information comes up.

The **Chairman.** What guidelines are there to protect the privacy of an employee once the medical examiner is satisfied that, in fact, the positive test was as a consequence of a legally prescribed drug, either in a dentist's chair or for a heart ailment or for epilepsy, or whatever?

Is there a procedure that guarantees that that record is then destroyed; that it does not appear on the employment record of the employee?

Dr. Walsh. Yes, sir. It becomes part of the employee's confidential medical record. There was some question about that in the initial issuance of the OPM guidelines. They have recently issued an amendment to the OPM guidelines to make that very clear that that information is not made part of the employee's general personnel file.

The **Chairman.** Well, would you like to comment on that, Doctor?

Dr. Morgan. Well, yes, I would like to comment very briefly that my colleagues who work at NIDA have done really an admirable job at trying to take this program and make it reasonable and just.

My opinion is the only better job they could do would be not to do the program.

Dr. Miike. I would like to make a comment, also.

The **Chairman.** Doctor, would you pull the microphone right up to you?

Dr. Miike. My professional opinion on the accuracy and reliability of the tests is quite separate from my opinions about the appropriateness of the use of these tests in particular settings, and that goes even to the use of illegal drugs.

Of course, the technology that is available is very good, so there is a great desire to use it in all manners. As a member of a minority group, I am pretty sensitive to those kinds of issues in terms of intruding on privacy and the appropriateness of a particular method of finding out facts, and let me just leave it at that.

Dr. SCHUSTER. I would like to simply say in summation that the technology is excellent. It is obvious that there is a risk in any human endeavor that people might be falsely accused. On the other hand, I think that the positive aspects of this program outweigh that possibility.

I think that if we try to say that there is not even the remotest possibility of a negative impact that we would not be correct. But it is true that the Defense Department and others have shown that a properly managed urine testing program can have a significant impact on the prevalence rates of drug abuse, and that is what we are trying to effect.

The CHAIRMAN. I appreciate that. I appreciate the testimony. I am not being facetious when I say this: It is clear that we could impact upon the incidence of crime if we eliminated the fourth amendment. It is clear that if we did not have the fifth amendment that we could, in fact, impact to some degree on the incidence of crime—maybe not the incidence, but the conviction rates.

I know you are not suggesting anything other than this, Doctor, but the dilemma for the Judiciary Committee, whose responsibility it is to weigh the constitutional considerations as well as the technical considerations here, is, notwithstanding the fact that this technology could provide a significant degree of certainty in its outcome, whether or not that is justified any more than some of the proposals relating to changing the fourth and fifth amendments are justified. I know you are not suggesting that, and I just want you to know that that is to be considered.

Before the panel leaves, we have two more panels to go, and this is really, in a sense, unfair to do, but it would be unfair to do it any other way, and that is that we have the Deputy Assistant Attorney General for the Civil Division here and I am very anxious to hear his testimony in some detail.

We also have a person whose testimony I am equally as anxious to hear on a separate panel, the representative of the American Civil Liberties Union, and a private attorney who are here to testify on this subject.

It is now 5:40 p.m. This hearing has to conclude by 6 p.m., and I see no way we can intelligently begin the last two panels. We could have run this hearing more rapidly, but I think that is not what we are about. The requirements of the committee are to try to get at the facts. I found the testimony of the five of you very helpful.

Since the Justice Department is still in town and will be at a later date, I wonder whether or not the Justice witness would be willing—would you be willing to come back? I mean, you have been here all day.

Mr. CYNKAR. Well, absolutely. You have raised a lot of questions that I would like to respond to anyway, so we can certainly accommodate you.

The CHAIRMAN. Well, thank you very much.

Is Mr. Adler here, and Mr. Evans?

Mr. ADLER. Yes, sir.

The CHAIRMAN. Mr. Evans, you may be out of town; I do not know. Are you?

Mr. **Adler**. I am Mr. Adler.

The **Chairman**. Oh, I am sorry, Mr. Adler. You are here in Washington?

Mr. **Adler**. Yes.

The **Chairman**. Mr. Evans?

Mr. **Evans**. I am from New Jersey, which is fairly close.

The **Chairman**. We can ride down on the drug-free Metroliner together. [Laughter.]

Mr. **Evans**. I drive, Senator. [Laughter.]

The **Chairman**. Would you mind? The reason I am doing this is because I want to have some time with you and we are not going to get the time this afternoon. I truly appreciate your taking the time.

I thank the panel of witnesses. The staff will be in touch with the three of you, the Justice Department and you two gentlemen, to ask you to come back.

If there is anything, gentlemen of the last panel, that you wish to submit for the record on reflection, the record will remain open until the next set of hearings.

I ask unanimous consent that Senator Thurmond's opening statement be submitted in the record.

[The statement follows:]

Prepared Statement of Senator Strom Thurmond

Mr. Chairman, I am pleased to be here today for the Judiciary Committee's hearing on drug testing. As we are all aware, the drug problem has reached crisis proportions in America. Drugs are everywhere from the school room to the board room. I believe that everyone agrees that steps must be taken to address this problem.

Last Congress, we passed a comprehensive drug bill which strengthened law enforcements' ability to deal with the drug problem. Also, we recognized the need for drug education and provided funds to be used for that purpose. This bill was an important first step. However, as responsible legislators, it is our duty not to stop there. We must continue to search for other ways to combat the drug problem.

Over the past several years, drug testing has emerged as one of the ways to detect and treat illegal drug use. We have seen it used in the professional sports area, in the private business sector, and more recently, President Reagan has issued an Executive Order authorizing drug testing for certain federal employees. As with anything new, there has been much criticism and controversy surrounding drug testing. Some argue that drug testing is unconstitutional. Others argue that drug tests are not accurate. I am sure that these issues and others will be addressed in the hearing today, and I look forward to hearing the testimony on this important issue.

The **Chairman**. I thank you very, very much. The hearing is recessed subject to the call of the Chair.

[Whereupon, at 5:41 p.m., the committee was adjourned.]

DRUG TESTING IN THE WORKPLACE

WEDNESDAY, MAY 13, 1987

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The committee met, pursuant to notice, at 10:10 a.m., in room SD-226, Dirksen Senate Office Building, Hon. Joseph R. Biden, Jr. (chairman of the committee) presiding.

Also present: Senator Grassley.

OPENING STATEMENT OF CHAIRMAN BIDEN

The CHAIRMAN. The hearing will come to order.

Today, the Senate Judiciary Committee resumes its hearings on the difficult but important issue of drug testing. I would like to welcome our distinguished witnesses and thank each of you for taking the time to share your opinions with us today on the legality of drug testing programs. For some of you, it is your second trip to these hearings. My special gratitude to you and, again, my apologies for not getting to you during the first hearing on April 9.

At the first hearing, we heard representatives of government, management, and labor discuss the problems of drug abuse in the workplace and the role that drug testing can and has played in stemming drug abuse on the job.

Despite their obvious personal differences, the witnesses were largely in agreement that while a drug-free work force is and should be an important national goal, drug testing should not be viewed as the sole means of achieving that objective. Rather, drug testing, if used at all, should be considered as a useful part of a comprehensive substance abuse prevention program geared toward rehabilitating employees.

Witnesses expressed concerns about the accuracy of drug tests, cautioning against unrealistic expectations and urging us to understand exactly what drug tests do and what they do not do, what they tell us and what they do not tell us. Drug tests do not tell us when or how frequently a substance has been used or abused, if it has been abused. They simply detect use. More than one expert witness told us that the tests do not measure impairment or intoxication, and the question then becomes what are we testing for.

I must tell you that I continue to have grave concerns about drug testing. I am troubled about many of the accounts of erroneous drug urinalysis tests, and I am equally distressed by the potential for carelessness and abuse by those who handle drug test specimens.

One of my priorities as Judiciary Chairman when I assumed this job was to target and use the resources of Congress and the federal government, to the extent that I could impact on them, to deal with drug trafficking and drug abuse in this country, and I have no intention of reducing that pressure now, nor do I believe that the Administration or anyone else in government does.

Now, more than ever before, this nation's effort to take on drug abuse in this country must be maintained, but I am not, however, convinced that mandatory random drug testing should be a part of that arsenal in the war against drugs.

Witnesses at our first hearing reinforced my doubts about the potential for erroneously branding an employee as a drug user. Given that, I think public and private employers should have grave reservations about invading the privacy and possibly infringing upon the constitutional rights of workers by adopting random drug testing.

As I noted at the first hearing, we could clearly reduce crime if the fourth and fifth amendments were not part of our Constitution. I have no doubt that would have an impact on crime. We generate a new type of crime, we generate a new type of abuse, but we could have an impact on crime if we did not have the fourth amendment and we did not have the fifth amendment. But they are there, and they are there for a very good reason. They protect the rights of the innocent as well as the guilty.

The legal verdicts about drug testing programs, particularly those involving random testing, are mixed. The issue likely will be resolved ultimately in the Supreme Court. We in Congress must also play a role by examining the constitutional and legal questions, but all of us must consider how to structure drug testing programs, and there is a need for drug testing programs.

So I would like today to start, although I have just been told as the way this place works, that there is a vote that has just been called and there are now 5 minutes left to vote—what I would like to do is or what I must do is go vote and then what I would like to do is come back and begin with our first and important witness, Assistant Attorney General in charge of the Justice Department's Civil Division, Mr. Willard, who has been an able witness before this committee on a number of occasions. I welcome him back and, Mr. Willard, I will go vote. We will recess for about 7½ minutes, I will go vote and come back and then move on with the panel. I apologize to all witnesses for having to interrupt you even before we have begun.

We will recess for 10 minutes.

[Short recess, after which the committee reconvened in room S-211, Capitol Building.]

The **Chairman**. The hearing will come to order.

We are not making it easy for you. I appreciate you all coming over here. We are in a procedural wrangle on the floor of the Senate. We will be voting every 15 minutes literally, not figuratively, for the next Lord only knows how long, and there would be no way to have continued the hearing absent you coming over here. It took us a moment to find the room. I compliment the staff on doing it as quickly as they did.

Let me welcome you and, rather than have any more preliminaries, why do we not begin with your testimony and then we will get into questions.

STATEMENT OF RICHARD K. WILLARD, ASSISTANT ATTORNEY GENERAL, CIVIL DIVISION, U.S. DEPARTMENT OF JUSTICE

Mr. **Willard**. Thank you, Mr. Chairman.

The **Chairman**. It is nice to have you back.

Mr. **Willard**. It is a pleasure.

I ask that my prepared statement be submitted for the record and I will give a brief summary.

The **Chairman**. Without objection.

Mr. **Willard**. I would like to take this opportunity to try to convince you that mandatory drug testing can be part of the nation's arsenal in the fight against drug abuse. I know you share the Administration's commitment to doing something about this problem, which the President believes to be the number one domestic problem our society faces today.

We also know our nation's drug habit cannot be controlled by law enforcement alone. We have to do something to reduce the appetite for drugs of our society, in which some 23 million Americans last month used illegal drugs of one form or another.

We believe that employers have a strong interest in achieving drug-free work forces. Employees in our workforce, in which 1 out of 6 use marijuana and 1 out of 20 use cocaine, are less productive than their non-drug-using co-workers, are more likely to be involved in an on-the-job accident, and are more likely to be absent from work and have other problems. Governments, especially as employers, have a strong interest in achieving drug-free workforces because so many public employees have a special trust and confidence that goes with their jobs in the area of health and safety, for example, people who work in nuclear facilities or work in air traffic control, people who work in law enforcement or people who have access to classified national security information.

On the legal side, of course, governments are subject to the fourth and fifth amendments and private employers are not, and so legal challenges have tended to come up mostly in the area of governmental drug testing programs. While the cases have gone both ways, at the appellate level all of the courts that have considered drug testing have upheld it. There has been no Federal Court of Appeals decision that has found drug testing to be unconstitutional.

We believe that this issue is one where a carefully designed program will be upheld by the courts as consistent with the Constitution.

It is important, and we would emphasize, that drug testing programs must be designed to be reliable. No one wants to have employees falsely accused of drug use. For that reason, the Administration's program under the Executive order issued by the President, as well as the HHS guidelines emphasize numerous safeguards to insure that we do not have false positives, where someone is accused wrongly of drug use. It requires a two-stage testing process with a confirmatory test using the most reliable available technologies, which the Congressional Office of Technology Assessment says could be 100 percent reliable if implemented properly.

In addition, there is a third step to the process, which involves review by a medical review officer to assure that the laboratory findings are consistent with the medical judgment before any positive result is reported. Also, in terms of effectiveness, we have an example of drug testing being effective in reducing drug use in the military, where, since 1981, a comprehensive random drug testing program has been implemented and has resulted in an enormous decrease in the amount of drug use among those individuals.

Of course, we certainly agree with you, Mr. Chairman, that drug testing alone is not going to solve the problem. It has to be part of a broader approach that includes employee assistance programs, a firm, announced policy that we are not tolerating drug use in the workplace, and dealing with employees ultimately through sanctioning, if necessary, to assure that drug use is not tolerated. We do believe that drug testing is an important part of this overall effort, and, for that reason, we support its use, both in the federal workforce for sensitive employees and in the private sector as well. Thank you, Mr. Chairman. I would be pleased to answer any questions you may have.

[Submissions of Mr. Willard follow:]

Department of Justice

STATEMENT

OF

RICHARD K. WILLARD
ASSISTANT ATTORNEY GENERAL
CIVIL DIVISION

Mr. Chairman and Members of the Committee--

I appreciate the opportunity to be here to discuss certain legal and constitutional issues surrounding an effective employee drug testing program.

Implementation of Drug Testing

The Federal government is just one of an increasing number of employers who have recognized a need to create an environment of zero tolerance for drug use by drug testing employees.

Because of the high rate of illegal drug abuse in our society and its debilitating effects on the workforce, both public and private employers are increasingly instituting drug testing programs to deter employee's use of illegal drugs. In private industry, approximately 30 percent of the Fortune 500 companies, including Ford Motor Company, IBM, Alcoa Aluminum, Lockheed, Boise Cascade and the New York Times have instituted testing programs using urinalysis for drug detection. Testing programs such as these have been enormously successful resulting in fewer-on-the-job accidents, increased productivity and improved employee morale. Consequently, their use is growing. Last year it was estimated that an additional 20 percent of Fortune 500 companies will institute drug testing programs within the next two years. The success of these programs gives us real cause to hope that a carefully implemented program of drug testing can lead to real progress in the war on drugs.

The Administration's program, as set forth in Executive Order 12564, is designed to achieve not only a drug-free federal workplace, but also to serve as a model for similar programs in the private sector. The Executive Order requires agency heads to develop plans that must include a statement of agency policy, Employee Assistance Programs, supervisory training programs, and procedures to put drug users in contact with rehabilitation services. Drug testing is an effective and reliable diagnostic tool to be used along with other indicia of illegal drug use to identify drug users. Of course, an aggressive program of public education is continuing to warn of the dangers of illegal drug use. We must make clear that drug use by federal employees--whether on or off duty--is unacceptable conduct that will not be tolerated.

The Executive Order

Let me turn now to the specifics of the President's program to foster a drug-free workplace. The Executive Order, by its very nature, sets forth a general authorization for a drug testing program without specifying in great detail how such a program would be conducted. The implementing guidelines like those recently released by the Department of Health and Human Services regarding the confidentiality of drug test results, are designed to afford protection to the individuals being tested without compromising the integrity of the program.

1. Employees Covered by the Random Testing Requirement. Under the President's Executive Order, random or uniform unannounced drug testing would apply only to certain employees, defined in section 7(d) by reference to five separate catagories. These would include law enforcement personnel, employees designated Special-Sensitive, Critical-Sensitive and Noncritical-Sensitive under federal personnel rules, all presidential

appointees, all employees with a secret and top secret security clearances and any other employees whom that agency head determines hold positions "requiring a high degree of trust and confidence."

Because of the great number of employees who necessarily must hold a top secret or secret security clearance, that category alone would extend coverage to a substantial number of employees. However, the total number of persons falling into these categories is not an accurate measure of how many persons ultimately will be tested. As the Executive Order makes clear, the head of each agency will decide how many of the covered employees would actually be tested, based on the agency's mission, its employees' duties, the efficient use of agency resources and the danger to the public health and safety or national security that could result from the failure of an employee to adequately discharge the duties of his or her position. Thus each agency head will exercise discretion in determining which employees will be tested.

In addition, the testing could take the form of random testing of only a fraction of covered employees each year. Our program is flexible--in that testing frequency can be adjusted based upon extent of drug use and degree of job sensitivity.

Of course, the head of each agency can order testing of any employee where there is reasonable suspicion of drug use, in the course of a safety investigation into an accident or unsafe practice, or as a follow-up to a rehabilitation program.

Also, voluntary testing programs will be set up for non-sensitive employees. Finally, the order authorizes any applicant for a federal job to be tested for illegal drug use.

2. Reliability of Testing Procedures. While the Committee has touched on the reliability issues with other witnesses during the April 9th hearing, it is useful to note that the Administration's program contains numerous safeguards to ensure reliability and fairness. First and foremost, the administration will not base any action on an initial test. Instead, following

an initial positive test result indicating drug use, we would test the same sample using a second, much more reliable device, such as the gas chromatography/mass spectrometry (GC/MS) test. This test is somewhat more expensive than the initial screening, but, as the Office of Technology Assessment (OTA) has recognized, it is virtually 100% reliable. In fact, the Navy has been conducting 1.8 million tests per year for 4 years straight with no false positives. Similarly, the Army has conducted 800,000 tests per year for 2 years with no false positives. I have attached a copy of a statement by Dr. Robert E. Willette discussing the effectiveness of these drug testing methods. For a more complete analysis of the accuracy and reliability of the various drug testing procedures, see the exhibits accompanying Dr. Willette's declaration in N.T.E.U. v. Reagan, No. 86-4058, (USDC E.D. LA., Defendant's Reply).

Moreover, the scientific and technical guidelines issued on February 13, 1987 by the Alcohol, Drug Abuse and Mental Health Administration of the Department of Health and Human Services would require that, before conducting a drug test, the agency shall inform the employee of the opportunity to submit medical documentation that may support a legitimate use of a particular drug. And all such information would be kept confidential. In addition, the order provides that employees may rebut a positive drug test by introducing other evidence that an employee has not used illegal drugs. The technical and scientific guidelines issued by the Department of Health and Human Services will ensure absolute integrity of our program.

Of course, there would be no way to detect a "false negative", short of performing the GC/MS in every case, which we do not see as cost-effective. However, we know from our experience in the military drug testing programs that a properly run program only produces false negatives in 5% to 10% of the samples, an acceptable number.

3. Privacy Concerns. Because there is a danger of an individual attempting to adulterate or substitute a specimen,

many firms which have used the urinalysis test, require that the sample be provided in the presence of, and under observation by an attendant. Obviously, this is a significantly greater infringement on an individual's privacy than if he or she is permitted to provide the sample behind closed doors, as is routinely the case in most physical examinations.

In an attempt to minimize the intrusiveness of the required drug test, the administration's Executive Order and implementing guidelines provide that "[p]rocedures for providing urine specimens must allow individual's privacy, unless the agency has reason to believe that a particular individual may alter or substitute the specimen to be provided." Although this might make it easier to adulterate a sample, it has been our experience under testing programs, that the mere fact that a test is required will ensure a significant deterrent effect on illegal drug use. We feel that with this single change, the program will be no more intrusive on an individuals privacy than an ordinary visit to the doctor.

4. The Non-Punitive Nature of the President's Program. Our program is premised on the President's strongly-held belief that federal employees who are found to be using drugs should be offered a "helping hand" to end their illegal drug use. Each agency is required to establish Employee Assistance Programs to ensure an opportunity for counseling and rehabilitation, and to refer employees to counseling if found to be using illegal drugs. The sixty-day warning period prior to implementation of a drug testing program will allow casual users to cease and addicts to come forward and request treatment. Moreover, no disciplinary action is required for an employee who comes forward voluntarily and agrees to be tested, obtains counseling or rehabilitation, and refrains from illegal drug use in the future.

Obviously, agencies must have the discretion to relieve employees in sensitive, and potentially life-threatening positions, of their assignments where drug use is indicated. However, even here, the agency head would have the discretion to allow an employee to return to a sensitive assignment as part of a rehabilitation program.

Testing pursuant to the Executive Order cannot be done to gather criminal evidence and agencies are not required to report the results of such testing.

5. Procedural Protections. Career employees in the civil service are protected by statute from preemptory dismissal or discipline by their superiors. Instead, due process protections included in the Civil Service Reform Act ensure them of the right to notice and opportunity to respond before any adverse personnel action is taken and the right to an impartial adjudication of any subsequently filed appeal. None of these rights would be abrogated by the President's Executive Order, which expressly provides that "[a]ny action to discipline an employee who is using illegal drugs (including removal from the service, if appropriate) shall be taken in compliance with otherwise applicable procedures, including the Civil Service Reform Act."

Constitutional Issues

Having outlined the President's program for fostering a drug-free workplace, I would like to turn now to the constitutional issues raised by the Order, and the use of drug testing generally. We are confident that Executive Order 12564 fully complies with all legal requirements.

The central constitutional issue of the litigation over drug testing is, of course, in what circumstances drug testing can be seen to violate the Fourth Amendment. At the level of the Courts of Appeals--that is, courts whose decisions have precedential value--all five Circuits that have addressed some aspect of the issue have upheld the constitutionality of drug testing. National Treasury Employees Union v. von Raab, No. 86-3833 (5th Cir. April 22, 1987); Mack v. United States, No. 86-6097 (2nd Cir. March 30, 1987); McDonell v. Hunter, No. 85-1919 (8th Cir. Jan. 12, 1987); Shoemaker v. Handel, 795 F.2d 1136 (3d Cir.)

cert. denied, 107 S. Ct. 577 (1986); Division 241, Amalgamated Transit Union (AFL-CIO) v. Suscy, 538 F.2d 1264 (7th Cir.), cert. denied, 429 U.S. 1029 (1976). District court opinions now cover almost the complete range of analytical approaches to the Fourth Amendment issues raised by urinalysis. For example, though the lower court in NTEU v. von Raab 649 F.Supp. 380 (E.D.La. 1986), characterized urinalysis as "more intrusive than a search of the home," the Southern District of New York concluded that such testing was less intrusive than fingerprinting. Mack v. United States, 653 F. Supp. 70 (S.D.N.Y. 1986), aff'd, No. 86-6097 (2nd Cir. March 30, 1987). Recently, in National Treasury Employees Union v. Von Raab, No. 86-3833 (5th Cir. April 22, 1987), and in National Ass'n of Air Traffic Specialists v. Dole, No. A87-073 (D. Alaska March 27, 1987) two different courts found that urinalysis by the Customs Service of employees in sensitive positions and by the FAA of Air Traffic Specialists to be reasonable searches passing Fourth Amendment muster.

The Justice Department, charged with the responsibility of defending federal agencies in court, has been in the thick of much of the recent litigation. For example, we have argued in support of the constitutionality of the FAA's drug testing program for air traffic specialists. In that case we argued that the FAA's drug testing program did not violate the Fourth Amendment for two reasons: first, as a fitness for duty examination involving minimal intrusion into personal privacy it did not constitute a search within the meaning of the Fourth Amendment; and second, that, even if viewed as a search, the extremely limited intrusion involved was outweighed by the strong public interest in safe air travel, rendering the search a reasonable one in full compliance with the Fourth Amendment.

Similarly, in the most recent circuit court decision on the drug testing issue, we argued in support of the constitutionality of the Customs Service's program of drug testing employees seeking sensitive positions. In that case, the court recognised that the Service need not predicate its drug screening on the grounds of probable cause or reasonable suspicion of employee drug use. Rather, the court held for the reasonableness of the Customs Service's drug testing program based on the strong Governmental interest in preserving the integrity and effectiveness of the Custom Service's mission. In its justification of the program, the court stated "[u]se of controlled substances by employees of the Customs Service may seriously frustrate the agency's efforts to enforce the drug laws" and "[l]ike other public agencies, the Customs Service has a strong interest in ensuring that its employees operate effectively." A copy of the court's opinion is appended to my testimony. As with the FAA decision, the Department views this holding as strong support for the President's drug testing program.

The President's program has been carefully designed to provide for random drug testing for employees in sensitive positions, and to limit any unnecessary intrusion into personal privacy. The government's general interests are recited in the preamble of the order and include the successful accomplishment of agency missions, the need to maintain employee productivity and the protection of national security and public health and safety. By requiring testing only for employees who occupy sensitive positions, the Executive Order ensures that the government interest will be substantial in every instance. Individual privacy interests are accommodated, for example, by the provision of the Executive Order which ensures that individuals must be allowed to produce urine samples in private unless reasonably suspected of intending to alter the sample. Unobserved urine testing is no more intrusive than other devices routinely employed to test a federal employee's fitness for duty--including physical examinations, fingerprint checks or background investigations. Moreover, as noted above, the Executive Order contains an advance notice requirement, an opportunity to submit documentation to support legitimate medical use of drugs, and procedures to protect the confidentiality of those medical records, as well as test results.

Other Legal Issues

Let me now turn to two statutory issues raised by the President's drug testing program: the so-called "nexus" requirement contained in the Civil Service Reform Act and the application of the Rehabilitation Act.

With respect to the first issue, we believe that a drug-free requirement for federal employees is reasonably related and furthers "the efficiency of the service" because illegal drug use --whether on or off duty--is inconsistent with the nature of public service, undermines public confidence in the government and entails unwarranted costs in terms of employee productivity. As I have noted, the Fifth Circuit decision in NTEU v. von Raab firmly supports this rationale. The Federal Circuit has also agreed in Saunders v. United States Postal Service, 801 F.2d 1328 (Fed. Cir. 1986). In that case, the court ruled that off-duty use and sale of cocaine automatically satisfied the nexus requirement stating "Egregious criminal conduct justifies a presumption that the required nexus has been met even when the drug offenses occurred off duty." More recently, the Merit Systems Protection Board in Kruger, et al. v. Department of Justice, (January 8, 1987), upheld disciplinary action taken against three Bureau of Prisons guards based on their off-duty use of marijuana. The board noted that "public perceptions of appellants' misconduct would impair the efficiency of the agency by undermining public confidence in it, thereby making it harder for the agency's other workers to perform their jobs effectively, even though the misconduct might not affect appellants' job performance." The seriousness of the danger cocaine presents to health and lives in America was recently underscored by Ninth Circuit Court of Appeals Judge Noonan in United States v. Alvarez, No. 83-5208 (9th Cir. Feb. 17, 1987).

The statutory issue arising from an application of the Civil Service Reform Act, is closely related to the Fourth Amendment balancing test question. As a general proposition, federal personnel law provides that adverse action can be taken against a covered federal employee "only for such cause as will promote the efficiency of the service." 5 U.S.C. §7513(a). The Civil Service Reform Act of 1978 further barred discrimination against any covered employee or applicant "on the basis of conduct which does not adversely affect the performance of the employee or applicant or the performance of others." 5 U.S.C. §2302(b)(10). Taken together, these two provisions are understood to require a "nexus" between employee misconduct for which severe sanctions may be imposed and the employee's performance of his job.[1]

Within these constraints, the President has broad authority to define conditions of employment. Under 5 U.S.C. §3301, the President may prescribe regulations for the admission of employees that "will best promote the efficiency of the service," as well as "ascertain the fitness of applicants" for employment. This authority is contained under 5 U.S.C. §7301 which explicitly recognizes the President's authority to prescribe "regulations for the conduct of employees in the executive branch." These provisions afford the President broad discretion to define conditions of employment that will best promote the efficiency of the service. Undoubtedly, the imposition of a drug-free requirement for federal employees will further the efficiency of the service.

First, there is no logical reason why federal service which turns on public trust requires tolerance of on-going illegal behavior by public servants. As noted above, the courts have recognized that "where an employee's misconduct is contrary to the agency's mission, the agency need not present proof of a direct effect on the employee's job performance," Allred v. Department of Health and Human Services, 786 F.2d 1128, 1131 (Fed. Cir. 1986). Similarly, "Congress expressly permitted removal of employees whose actions might disrupt an agency's smooth functioning by creating suspicion, distrust, or a decline in public confidence." Borsari v. Federal Aviation Administration, 699 F.2d 106, 112 (2d Cir. 1983), cert. denied 464 U.S. 833 (1983). The illegal use of drugs by a federal employee--whether on or off duty--is inconsistent with the nature of public service and undermines the general confidence of the public in government. It also creates suspicion and distrust that is inimical to the cooperation among employees necessary for the efficient operation of an agency. See Wild v. United States Department of Housing and Urban Development, 692 F.2d 1129, 1133 (7th Cir. 1982).

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[1] The protection afforded by 5 U.S.C. §7513 applies to employees in the competitive service and certain preference-eligible employees in the excepted service whereas 5 U.S.C. §2302(b)(10) covers employees in the competitive service, career appointee members of the Senior Executive Service and most of the excepted service but for Schedule C employees and Presidential appointees. Because Schedule C appointees are not covered by either of the statutes, there is no nexus issue for these employees.

Second, employee drug use imposes an extraordinary cost on the government in terms of the safety of the workplace and employee productivity. Studies by the National Institute on Drug Abuse document that employees who use drugs have three times the accident rate as non-users, double the rate of absenteeism, higher job turnover rates and cost three times as much in terms of medical benefits. These high costs provide a sufficient foundation for any requirement that federal employees abstain from the use of illegal drugs, and demonstrate that there is a clear nexus between drug abuse, employee productivity and the "efficiency of the service." I have attached to my statement, for inclusion in the record, the declarations of several leading experts in the area of drug use effects that clearly document this relationship.

These concerns are expressly set forth in the Executive Order as Presidential findings to dispel any uncertainty over the fact that there is a nexus between drug abuse and the efficiency of the service.

Now let me turn briefly to the Rehabilitation Act, 29 U.S.C. §791, and its effect on the President's Executive Order. That Act prohibits discrimination against, and requires that select agencies take affirmative action to accommodate and, in effect, not discriminate against the handicapped. Current regulations include drug addiction as a handicapping condition. 29 C.F.R. §1613.702. The Executive Order contains provisions to ensure that an employee who is addicted to drugs will receive counseling and therapy as required by the Rehabilitation Act. The level of accommodation provided is, we believe, adequate to satisfy the requirements of the Act.

Moreover, the Act applies only to drug "addicts"; it has no bearing on recreational users. Hence, individuals who could cease using illegal drugs but have not done so are not entitled to any protection under the Act.

That concludes my prepared statement. I would be happy to answer any questions which the Subcommittee might have.

DECLARATION OF DR. MARIAN W. FISCHMAN

1. I am currently Associate Professor in the Department of Psychiatry and Behavioral Sciences at the Johns Hopkins University School of Medicine. Since receiving my Ph.D degree in 1972, I have been actively involved in research in behavioral pharmacology. My training and subsequent experience has involved studying the effects of drugs in rats, cats, monkeys, and humans under a broad range of experimental conditions. As evidenced by my enclosed *vitae*, I have published and spoken extensively in this area. During the past ten years I have testified in a number of court cases as an expert witness on the effects of cocaine. I have served as a consultant to the Federal Government in the area of drugs of abuse, and as well have consulted for a number of pharmaceutical companies and private foundations in the same context. My *curriculum vitae* is attached as Exhibit A.

Residual Effects Of Marijuana

2. It is well established that the use of some psychoactive drugs (e.g., alcohol) result in residual effects the day after intake, when only negligible amounts of the drug remain in the body. Even subtle changes in attention, memory, psychomotor function, or mood could have important implications for on-the-job performance.

3. Dose related reports of "hangover" have been reported the morning after orally ingested delta-9-THC (Cousins and DeMascio, 1973), and Weller and Halikas (1982) found that the most frequently reported adverse effects of marijuana smoking were "awakening tired" and "mind foggy."

4. A controlled laboratory study was carried out in which subjects were tested the morning after smoking active or placebo marijuana (Chait, Fischman and Schuster, 1985) [attached as Exhibit B]. The morning after the active marijuana, but not the placebo, was smoked, subjects scored significantly higher on a number of subjective effects scales as well as on a measure of time production. These hangover effects were relatively subtle, but even subtle changes in mood or behavior could have significant practical consequences for the many people who use

marijuana believing it will have no residual effects the next day. Other studies are currently in progress to more clearly delineate the nature and extent of these effects.

5. A recent report has identified severe impairment in experienced airline pilots the morning after they had smoked an active marijuana cigarette (Yesavage, Leirer and Hollister, 1985) [attached as Exhibit C]. The pilots reported feeling no drug effects and were unaware that they were suffering from hangover. Despite this lack of awareness of hangover effects, performance impairment was obvious.

6. Although the data do not yet delineate the limits of the residual effects of smoking marijuana, it appears that a hangover after marijuana smoking may exist, and may, with certain tasks, interfere severely with performance. These findings, although clearly preliminary and specific to the conditions tested, support the possibility that smoking marijuana can lead to unexpected effects long after the last dose of the drug, when the smoker is no longer feeling the drug's effects and is acting under the mistaken belief that all of marijuana's effects have dissipated. It is likely that additional research will reveal further evidence of the long-term effects of marijuana.

Residual Effects of Cocaine

7. There are no controlled laboratory data available that definitively answer the question of whether or not use of cocaine is followed by residual effects after its initial acute effects have worn off. Therefore, consideration of the effects of a drug that acts similarly in most salient aspects is appropriate.

8. The behavioral effects of amphetamine appear to be much like those of cocaine. These two drugs (1) have similar unconditioned effects on behavior (i.e., unlearned behavior), (2) maintain drug-taking behavior (both are drugs of abuse), (3) have discriminative stimulus properties in common (they appear to have the same effect to the user), and (4) have effects that are, with few exceptions, antagonized or altered by the same drugs. See, e.g. Woods, Winger and France (1987). In addition, these drugs appear to have similar or the same final common pathway through

activation of central dopamine receptors (see Fischman, 1987). That is to say, use of either amphetamines or cocaine result in increased dopamine in the neuronal synapse which directly affects the operation of the body's nervous system. Further, experienced users rate them comparably in terms of their subjective effects, and cannot tell them apart when each is administered intravenously (Fischman et al, 1976). It is therefore possible to draw conclusions about the effects of cocaine by extrapolating from what we know about amphetamine, which is useful because the latter drug has been tested far more extensively (Fischman, 1987) [attached hereto as Exhibit D].

9. The existence of a cocaine toxic psychosis has been widely reported in the clinical literature (e.g., Crowley, 1987), although it has not been experimentally induced. Administration of amphetamine to normal volunteers with no histories of psychosis, however, resulted in a clear-cut paranoid psychosis in five of the six subjects tested (Griffith et al, 1970). The subjects became depressed after the drug was discontinued and slept in bursts for several days. Paranoid ideation (thoughts of persecution) lasted as long as three days and, on the first day after cessation of drug, all subjects showed a significant increase in size estimation standard tests. These laboratory data clearly demonstrate the residual effects of amphetamine, and by extrapolation, cocaine.

10. It has further been reported that there is sensitization to the development of stimulant psychosis (Ellinwood and Kilbey, 1977). Once an individual has experienced this toxic effect, it is readily re-initiated, at lower doses, even following long drug-free periods and is longer in duration (Sato, 1985).

11. Clinical descriptions of the toxic consequences of repeated cocaine use report the existence of a withdrawal syndrome including depression, craving, tremor, muscle pain, EEG changes and sleep and eating disturbances (Gawin and Kleber, 1985). Such symptoms persist for several days after cessation of drug use. While these symptoms represent the majority of the behavioral changes reported, it is possible that other changes affecting brain function and behavior can result from use of cocaine.

12. Based on the foregoing review of scientific research and my own experience, the data indicate that the risk of long-term impairment from use of cocaine and marijuana has the potential to create serious problems when combined with tasks that may require rapid exercise of refined judgment, such as those encountered when working with highly toxic substances or other dangerous conditions, law enforcement duties, etc.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

3 April 1987
Date

Marian W. Fischman
Dr. Marian W. Fischman

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DECLARATION OF SIDNEY COHEN, M.D.

1. I am a licensed medical doctor currently employed as a Professor of Psychiatry at the University of California, Los Angeles, Neuro-Psychiatric Institute. I hold advanced degrees in medicine and pharmacy. The majority of my professional life has been occupied by studying the effects of mind-altering drugs, including early research on LSD and marijuana. I have been a consultant to, and a committee member of, various governmental agencies concerned with alcohol and drug abuse and am currently on the National Drug Abuse Advisory Council of the National Institute on Drug Abuse. I have published or co-authored over 300 articles and books on the subject of psycho-pharmacology and drug/alcohol use and am on the editorial board of seven journals specializing in substance abuse. I am also the editor of "Drug Abuse and Alcoholism Newsletter," distributed by the Vista Hall Foundation, a non-profit mental health treatment center. A copy of my *curriculum vitae* is attached as Exhibit 1.

LONG-TERM IMPAIRMENT EFFECTS OF ILLEGAL DRUGS AND EASE OF DETECTION

2. Two types of intoxication exist. One causes disturbances in the center of the brain for coordination, balance, speech and fine movements. It is exemplified by alcohol intoxication which is manifested by gait disturbances, speech impairments, sometimes drowsiness and difficulties in performing certain motor functions accurately. The manifestations of alcohol intoxication are readily detected, and with training, supervisors can even quantify the degree of intoxication, if necessary. Traffic officers have learned to administer simple tests like walking a straight line heel to toe, touching a finger to the nose with eyes closed, repeating certain phrases and checking body sway to determine the degree of intoxication. Nystagmus (flicking of the pupils when looking laterally) correlates well with the blood alcohol level, and can be easily checked. In the case of marijuana, a new or infrequent user may infrequently experience some difficulty in rational speech or a bout with exaggerated laughter.

3. There is also an additional type of "intoxication," but one in which few overt signs can be observed. The part of the brain that causes speech and motor difficulties is not involved. Instead, what is affected is judgment, decision making, reaction time, and other abilities needed to perform work safely. Cocaine, marijuana, and amphetamines typically produce this second form of intoxication. The problem may be particularly acute with a heavy or frequent user.

4. Since the symptoms associated with this form of intoxication are not readily manifested in observable behavior, supervisors, and even some doctors, will have difficulty detecting this form of intoxication. It has been suggested that if supervisors receive training in detecting intoxicated or otherwise drug-impaired employees, they will be better able to spot developing problems in the workplace. While the suggestion is logical, it must be recognized that trained supervisors can only be expected to identify drug intoxication due to certain drugs but not to others.

5. The distinction between observable alcohol-related impairment and the less dramatic, but equally important, impairment of cognitive abilities associated with marijuana and cocaine, is illustrated by review of the official diagnostic criteria for alcohol, marijuana and cocaine intoxication contained in Diagnostic and Statistical Manual of Mental Disorders, (3rd Edition) American Psychiatric Association, Washington, D.C. (1980). Below is a chart listing each diagnostic criterion and the ability of a person that does not have formal medical training, but does have drug-use detection training, to detect impairment. As can be seen from the chart, cocaine and marijuana use only can be confidently detected after the maladaptive behavior (such as fighting, paranoia, etc.), that is sought to be prevented, has occurred.

Diagnostic Criteria for Alcohol Intoxication	Detectable by Trained Supervisor
A. Recent ingestion of alcohol (with no evidence that the amount was insufficient to cause intoxication in most people	No
B. Maladaptive behavioral effects, e.g., fighting, impaired judgment, interference with social or occupational functioning.	Yes
C. At least one of the following physiologic signs:	
(1) Slurred speech	Yes
(2) Incoordination	Yes
(3) Unsteady gait	Yes
(4) Nystagmus (lateral eye flicks)	Yes
(5) Flushed face	1/
D. At least one of the following psychological signs:	
1. Mood change	No
2. Irritability	1/
3. Loquacity	1/
4. Impaired attention	1/
E. Not due to any other physical or mental disorder.	No

Diagnostic Criteria for Marijuana Intoxication	Detectable by Trained Supervisor
A. Recent use of cannabis	No
B. Tachycardia (rapid heart rate)	No 2/
C. At least one of the following psychological symptoms within two hours of use:	
(1) Euphoria (feeling of well being)	1/
(2) Subjective intensification of perceptions	No
(3) Sensation of slowed time	No
(4) Apathy	1/
D. At least one of the physical symptoms within two hours of substance use:	
(1) Conjunctival injection	Yes 3/
(2) Increased appetite	No
(3) Dry mouth	No
E. Maldaptive behavior effects, e.g., excessive anxiety, suspiciousness of paranoid ideation, impaired judgment, interference with social or occupational funtioning.	Yes

F. Not due to any other physical or mental disorder.	No

Diagnostic Criteria for Cocaine Intoxication	Detectable by Trained Supervisor
A. Recent use of cocaine.	No
B. At least two of the following psychological symptoms within one hour of using cocaine.	No
(1) Psychomotor agitation	Yes 1/
(2) Elation	No
(3) Grandiosity	No
(4) Loquacity	2/
(5) Hypervigilance	2/
C. At least two of the following symptoms within one hour of using cocaine.	
(1) Tachycardia	No 2/
(2) Pupillary dilation	Yes
(3) Elevated blood pressure	No 2/
(4) Perspiration or chill	Yes 1/
(5) Nausea and vomiting	Yes 1/
D. Maladaptive behavioral effects, e.g., fighting, impaired judgment, interference with social or occupational functioning.	Yes
E. Not due to any other physical or mental disorder.	No

1/ These symptoms and signs are non-specific and cannot be used to make a diagnosis of intoxication. Many people are more irritable, loquacious, flushed, euphoric or apathetic than others in their sober state. A supervisor cannot be expected to judge which mood states are due to drugs or to other factors.

2/ Signs like tachycardia and increased blood pressure require touching the employee and having professional skills beyond those expected of the trained supervisor.

3/ Signs like conjunctival injection, perspiration or nausea are so common to many conditions that they cannot be used as assuming drug usage has occurred. Conjunctival injection, for example, is found in cases of hay fever, common cold and eye infections.

6. The type of intoxication commonly resulting from use of an illegal drug is particularly insidious in that an employee who is intoxicated may not be able to recognize the impact such intoxication is having on his ability to perform his work safely and efficiently. The difficulty is more pronounced when the job tasks require concentration, reaction, and coordination. A properly administered drug screen urinalysis may be able to discover drug use which impact upon an employee's job performance even though such impact would not be readily apparent to a trained observer or to the employee himself or herself.

7. I have examined the Declarations of Dr. Arthur J. McBay and William J. Estrin, M.D. submitted by plaintiffs. I agree with Drs. McBay's and Estrin's statements that the results of a drug screen urinalysis cannot definitely prove whether an employee is under the influence of the tested for illegal drug to such an extent that he is impaired from performing his job properly. However, their conclusions that drug testing is therefore futile in assessing whether an employee is impaired do not follow. Testing of biological fluids, if done properly, will objectively determine whether a person has consumed an illegal drug. Moreover, repeated positive test results indicating a high level of drugs indicates that the employee may be a heavy drug user or has a serious drug dependency problem.

8. Dr. McBay's statements regarding the period of impairment that may result from marijuana or cocaine use does not reflect the current medical knowledge about those illegal drugs. One of the more important findings for industrial operations is that serious skill impairment has been measured for 10-12 hours after smoking a single marijuana cigarette. Research by Dr. Marian Fischman, Dr. Jerome Yesavage, Dr. Herbert Moskowitz and others (see, exhibits to the Declaration of Dr. Marian Fischman) are examples of scientific research that found evidence of the long-term effects of marijuana. This is long after the "stoned" state has disappeared and the person feels normal. Furthermore, some drugs, like marijuana and PCP (phencyclidine), when taken frequently, can impair a person long after the individual has stopped using it. "Phencyclidine: An Update," NIDA Research Monograph Series 64. DHHS Pub. No. (ADM) 86-1443, Washington, D.C. (1986) at 190-207.

9. Recent studies have also confirmed the impact of drug use -- particularly marijuana -- on memory. E.g. Marihuana: Biological Effects, (eds.) Nahas, G. G., Paton, W. D. M., Pergamon Press, New York, (1979) at 542-555. Recall is impaired and short-term memory is worsened. One potential impact is that an employee subject to such diminished memory may have difficulty recalling previous safety instructions and emergency directions.

A person who uses drugs cannot know when they have recovered their usual skills and neither can those who supervise them.

ABILITY TO DETECT NEUROLOGIC IMPAIRMENT IN WORKERS

10. There are several profound problems associated with the use of Dr. Estrin's neurobehavioral evaluation system or NES, P-300 Cognitive Event Related Potential and EEG Spectral Analysis that render those tests unsuitable to determine workplace impairment caused by illegal drugs.

11. First, the Estrin-Bermin test battery has not been tested with, or validated for, impairment due to illegal drug use. As even preliminary studies with marijuana, cocaine and other drugs of abuse have not been made, there is no showing that mental dysfunction due to use of those drugs is accurately measured by Estrin's computer program. More elementally, there is no showing that what Estrin's test measures (reaction time, hand-eye coordination, brain wave testing, etc.) correlates with the functions which an employer may most want to remain unimpaired (judgment, memory and the higher cognitive activities).

12. Second, the necessity of establishing a baseline for each worker which future test results would be measured against, introduces virtually insurmountable difficulties. For example, scores curve upwards with practice even under identical psychophysiological conditions because of learning effects. Also, the baseline must be established when the worker is functioning at a "normal" level. A test baseline designed to measure impairment not detectable by a trained supervisor is useful only if it is known that the test-taker is not so impaired at the time of the baseline test: by definition, an impossibility for illegal drug use without urinalysis.

13. Finally, the Estrin-Bermin test purports to measure neurophysical impairment that can be caused by numerous factors. As Dr. Estrin admits at paragraph 4 of his statement, cognitive impairment of worker performance

> may be caused by a wide variety of sources, including emotional distress, neurological organic diseases (such as Alzheimer's disease) and poor general physical health.

Thus, a "positive" test would result from events unrelated to illegal drug use about which a person would not want to inform his employer (e.g. a death in the family, an automobile accident on the way to work, a neurological disease, etc.).

14. Certain employees in sensitive positions (those with positions that impact on public safety and the national security, for example) should be expected to provide their services in a sober state. A reasonable program of random urine testing for these individuals will avoid the misfortunes due to drug abuse. Random testing serves not only to identify and help the individual, it also proves to be a deterrent to future drug use as proven by the extensive experience in the military. In my opinion, based on my experience and knowledge of the impairment caused by illegal drugs and its often relatively subtle nature making detection difficult, it is necessary to have both "for cause" and "random" testing for illegal drug use available for employees in sensitive positions.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Apr 14, 1987
Date

Sidney Cohen
SIDNEY COHEN, M.D.

DECLARATION OF ROBERT L. DUPONT, JR.

I, Dr. Robert L. DuPont, Jr., hereby states as follows:

1. I am Vice-President of Bensinger, DuPont and Associates, Inc., a national firm providing consultation on drug abuse prevention in the workplace. I am also a Clinical Professor of Psychiatry at Georgetown Medical School and Visiting Associate Clinical Professor of Psychiatry at Harvard Medical School. I serve as Chairman of the Center for Behavioral Medicine, which provides clinical psychiatric services in several cities. From 1973 to 1978, I was the first Director the newly-formed National Institute for Drug Abuse and, from 1973 to 1975, served as Chief of the White House drug program. I maintain an active clinical practice of psychiatry, having worked directly with hundreds of drug-dependant persons over the last 18 years. My curriculum vitae is attached as Exhibit A.

The Need for a Tissue-Based Standard of Impairment

2. A popularly-held, but mistaken, view is that drugs cause people to be impaired in an easily identifiable manner. From that erroneous premise, it is concluded that a drug user is either "impaired" or "not impaired" at any particular time at work and, if the user is "impaired," then there are clear, suspicious signs that some other person can detect as a basis to have the person tested. It is true that at the extreme end of the continuum, drug users are grossly impaired, often showing signs of intoxication, bizarre behavior, and even coma and death. The problem comes, however, with the fact that most drug effects

are more subtle than such crude intoxication. Alcohol-caused impairment is usually associated with well-known and usually easily-recognized features such as the odor of alcohol on the user's breath and incoordination as shown by slurred speech and the inability to walk a straight line. In contrast, illegal drugs offer no easy markers of use. There is no breath odor and, for many illegal drugs, incoordination is a late-stage sign of impairment.

3. This problem is made more acute because there is no simple test to detect degrees of impairment caused by illegal drugs or alcohol. Efforts to develop such a test have been uniformly unsuccessful. For example, several years ago General Motors developed an interlock system for cars in an attempt to cut down on drunk-driving. When the driver got into the car and turned on a key, a series of random digits flashed on the dashboard screen. The driver had a few seconds to punch in those same digits in the precise order they were shown in order to start the car. However, in field tests it was discovered that many clearly impaired, drunk people could pass the test. Equally alarming was the finding that many non-impaired drivers (with safe driving records) could not pass the test.

4. It is clear beyond any doubt that drug use is correlated with negative problems at work including increased accidents, reduced productivity and increased health care and medical costs. In its study of the effects of drug and alcohol abuse in the workplace, the Research Triangle Institute estimated the cost to

the United States economy from lost productivity and other factors caused by drug abuse in 1980 was 46.9 billion dollars.[1] While it is difficult to put precise numbers on each of these problems, experts agree that drug and alcohol abuse produce the following effects at work: increased absenteeism and tardiness, lowered productivity, increased illness, accidents and injuries, higher use of medical benefits, theft of company and co-worker property to support drug habits and strained relations between employees and those around them. Also, while it cannot be shown that drug-caused impairment makes dangerous every single minute of the workday for every single task, it can be shown that drug-using employees create and increase risks for employers and fellow employees alike. Those who receive goods and services provided by drug users similarly will bear the costs of increased quality control errors or safety hazards.

5. Because of the high social and economic costs associated with the risk of long-term impairment from illegal drug use and the absence of easily applied objective criteria to determine the degree of impairment, in my judgment, based upon my extensive educational, professional and medical expertise, the only scientifically sound approach is to establish a per se definition of impairment. That is to say, if there is evidance of illegal drug use from testing a person's urine, then it is also true that these drugs are present in the user's brain and the possibility

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[1] Harwood, H.J.. Napolitano, D.M., Kristiansen P.L., Collins J.J. "Economic Costs to Society of Alcohol and Drug Abuse and Mental Illness: 1980" Research Triangle Institute (1984).

of impairment can be inferred. A similar approach has been adopted for alcohol to determine intoxication for drivers where a specific tissue level of the intoxicating drug is defined as equating to impairment.

6. Experience proves the need for a tissue-based standard prohibiting the presence of illegal drugs in an employee's body. I know of no way of enforcing this standard except by random testing. In my experience, companies with thousands of employees that use a "reasonable suspicion" standard for drug testing may try only a few, five or ten, "for cause" tests a year even where it is conceded by the employees that significant drug abuse problem exists. This may occur because reasonable suspicion testing bears a stigma of having been "selected" by a superior's belief that one is displaying negative behavioral actions.

7. The Navy experience also illustrates why "reasonable suspicion" testing alone has proven to be inadequate. For many years, while I was head of the White House Drug Office and as Director of the National Institute on Drug Abuse, I urged the military commanders to test randomly. The Navy resisted, taking the position that its commanding officers knew their men and that they would spot any problems. That "commander directed testing" system was in effect in 1981 when an airplane crashed on the Nimitz aircraft carrier causing several deaths as a direct result of drug use by Navy seamen. The Navy, shocked out of its complacency by that tragedy, then tested its personnel and found that 48 percent of its enlisted men under 25 were using illegal

drugs.[2] As a result, the Navy instituted random testing and over the next six years drug use gradually fell to the current level of about 3 percent.

8. But perhaps the best part of the Navy experience is that drug use declined without wholesale disciplinary measures being needed. Relatively few servicemen were treated. The vast majority were not separated from the service (although some were treated and some were separated). The military personnel simply stopped using drugs.

The "Drug Dependence" Syndrome

9. It is important to identify illegal drug users at the workplace before their impairment becomes obvious because of the nature of drug use or what is called the "drug dependence syndrome".[3] There are three distinct stages to the drug dependence syndrome. The first stage is experimentation, when a person tries a drug for the first time. The second stage of the

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[2] "Urine Testing for Drugs of Abuse" National Institute on Drug Abuse Research Monograph Series No. 73, Hawks, R.L. and Chiang, C.N. (eds.) (1986) at 6.

[3] The term "drug dependence" has replaced and, to a large extent, incorporated the previously used terms "addiction" and "habituation". According to the World Health Organization of the United Nations,

> drug dependence is a state, psychic or also sometimes physical, resulting from the interaction between a living organism and a drug, and characterized by behavioral and other responses that always include a compulsive desire or need to use the drug on a continuous basis in order to experience its effects and/or avoid the discomfort of its absence.

drug dependence syndrome is occasional use. We are familiar with this stage from the social drinking associated with alcohol use. In this stage a person uses a drug or does not use a drug and it is not terribly important in a person's life. There is a conviction of mastery and control, an "I can handle it" quality, in this stage of drug use. Users of marijuana and cocaine are less likely to recognize their own impairment that users of alcohol.

10. The third stage is the dependence or the "hooked" stage. This is to be differentiated from being physically dependent in the sense that the physically dependent person will have withdrawal symptoms when stopping drug use. One of the greatest mistakes the medical field made over the last few decades was to focus on physical dependency as the key to the drug problem. The real problem is psychological desire for the illegal drug, which makes drug use the most important thing in a person's life.

11. There are some characteristic problems that appear at these three stages of illegal drug use. Even at the stage of experimentation there are many problems. One example is a panic reaction which can occur when a person first tries marijuana. There can be tremendous rush of panic which can trigger the onset of panic disorder, leading to an emotionally crippling syndrome called agoraphobia. This panic reaction can be caused by a single use of marijuana. The work-related problems characteristic of the second, or occasional use, stage can be

equally destructive. This is the stage when drug users become proselytizers. They are having a good time with the drug and appear to be in control of its use. The drug use is contagious, spreading to other people, including fellow employees. In the third stage, the stage of being hooked, come the most obvious health problems characteristic of chronic drug use. As noted above, the intoxication from illegal drugs can be much harder for both the user and other persons to discern than similar intoxication from alcohol.

12. At any stage of the drug dependence syndrome there are two common problems: the loss of control during acute intoxication and decreased motivation. Both of these conditions lead to accidents and low productivity. The drug-intoxicated person does not care as much about job performance and cannot do as good a job.

13. The effects of marijuana are particularly troublesome in the workplace. Unlike alcohol, which is quickly metabolized to water and carbon dioxide by the body, the active chemical in marijuana that causes intoxication (THC) stays in the brain for a long time. It can be detected in the brain even 30 days after a single use, and an ordinary urine test for marijuana use may be positive for several days after use of the drug. Because it does not leave the body quickly, the effects of marijuana tend to be

more subtle than the effects of alcohol. There is less staggering or slurred speech.[4]

14. The effects of cocaine are entirely different from those of marijuana. Marijuana is long-acting and has a number of subtle effects, while cocaine is short-lived and intense in its effects. Cocaine users tend to use the drug repeatedly in bursts, called "runs." They often use it five or six times in 20-minute intervals and then stop. Sometimes they use cocaine only once, but runs lasting hours or even days are more typical. A one- or two-day run is somewhat like an alcoholic binge. During a run the coke user cannot sleep and eats little, if anything. Usually the "run" ends when a person is out of money to buy more cocaine. The depression or sense of loss of hope, loss of energy, and demoralization that occurs at the end of a cocaine run can be dramatic.

15. Another aspect of the cocaine problem that is unique is the cost of the drug. Continued intoxication with either marijuana or alcohol will cost no more than about $10-$20 a day. Conversely, with cocaine, a _single_ use of the drug may cost from $5 to $20. Compulsive use of cocaine can extend to several hundred dollars, or even to thousands of dollars, a day. The

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[4] The fact that THC stays in the brain so long explains something that marijuana users often mention: the lack of a hangover after its use in contrast to the common hangover after using alcohol. The reason there is no hangover from marijuana is that the marijuana chemical, THC, is still in the brain the morning after use and for days after use. This is not a sign that marijuana is better or less destructive; it is a sign that THC is still present in the body.

reason: cocaine has a short duration of action producing a high tolerance level. As a result of those characteristics, the cocaine user may rapidly escalate the dose so that the limiting factor becomes the availability of money. This fact is important to those concerned about drug use in the workplace because a cocaine abuser becomes obsessed with obtaining money to buy cocaine. This fuels the problem of theft, crime, drug sales, and other criminal activities.

16. Another key factor involved in the drug dependence syndrome is that anyone who is using drugs is a potential spreader of that behavior to other people. That is important in the workplace, particularly when people work together in crews. The person using drugs on the job is not only a menace in terms of what he does to himself or herself, but they are also likely to spread drug-using behavior, and the associated negative values, to other people. Drug use is a contagious behavior spread directly from the user to other persons sharing the same environment.

17. An overrated fear associated with urine testing is the defense of passive inhalation producing a positive test. If a person were in a phone booth with no ventilation with four persons who smoked marijuana for four hours, the non-user might trigger a positive urine test for marijuana at the lowest level. Under those circumstances, however, the person would feel like he would die of asphyxiation. In one test that attempted to demonstrate that positive tests could be produced in such a phone

booth, researchers had to give the subjects goggles because they could not stand the eye irritation from the dense smoke. It is established that one cannot get positive tests from passive inhalation except in the most extreme situations, certainly not in a room at a party or a concert.

18. In my opinion, random testing is a powerful means of drastically reducing drug use and thereafter preventing further drug problems from occurring. If employees do bring drugs to work in their bodies, then random testing will identify that so that appropriate treatment and disciplinary actions can be taken to safeguard the drug-using employees, as well as their coworkers, the employers and the public. The current national average cost for drug and alcohol problems at work is $1,000 per worker per year. This cost is not only paid by the drug users, it is paid by everyone who works and everyone who consumes products and services which carry this huge "chemical dependence" tax.

19. The scientific data and my extensive experience with substance abuse treatment and research, leave me no doubt that the risk of impairment from illegal drugs makes any use detrimental to the workplace and should not be tolerated and cannot be justified. This is especially true where the work involved contains even a slight degree of sensitivity, responsibility or importance.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

4-6-87
Date

DR. ROBERT L. DUPONT, JR.

DECLARATION OF ROBERT E. WILLETTE, PH.D.

I, Robert E. Willette, hereby declare as follows:

BACKGROUND AND EXPERIENCE

1. I am President of Duo Research Inc., a private consulting company that specializes in assessing drug testing programs and procedures. I have testified as an expert witness on over thirty occasions before labor arbitrators, military courts-martial, and in federal court on drug testing procedures and their reliability. I received my Bachelor of Science Degree in Pharmacy from Ferris State College in 1955. I received my Doctor of Philosophy Degree in Pharmaceutical Chemistry from the University of Minnesota in 1960. Since 1959, I have held various faculty and research positions in the field of drug chemistry. I served as the Chief of the Research Technology Branch, Division of Research, National Institute on Drug Abuse, from 1975 until June 30, 1981. In that capacity, I was responsible for the development of drug testing procedures, their validation, and the monitoring of drug testing laboratory performance. I have written and edited many research articles, monographs, and other material on drug testing. My curriculum vitae is attached as Exhibit A.

2. Duo Research Inc., which is located in Annapolis, Maryland, specializes in the evaluation of drug testing programs and laboratories and conducting proficiency testing and blind quality control programs. I am serving or have served as a consultant on drug testing programs to the White House Office of Drug Abuse Policy, U. S. Navy, U. S. Army, Federal Aviation Administration, National Highway Traffic Safety Administration, U. S. Postal Service, Drug Enforcement Administration, Federal Bureau of Investigation, U. S. Customs Service, Washington Metropolitan Area Transit Authority, New York City Transit Authority, Southeastern Pennsylvania Transit Authority, District of Columbia Metropolitan Police Department, Washington Gas Light Company, Potomac Electric Power Company, Johns Hopkins Hospital, Catholic University, and several commercial firms.

3. I have reviewed the affidavits of Arthur J. McBay

and William J. Estrin as filed in Civil Action No. 86-4058, National Treasury Employees Union, et al., v. Ronald W. Reagan, and offer the following opinions and observations.

EFFECTIVENESS OF DRUG TESTING

4. Over the past 15 years, I have been involved with the development of analytical procedures and safeguards to assure their maximum accuracy and reliability. Such safeguards include rigorous inspection of drug testing laboratories, not only during the selection process but at periodic and unannounced times throughout the year. Proper assessment and monitoring programs also include the submission of quality control samples to the laboratory in a blind fashion, mixed in with regular specimens. Studies and several years of experience by the Centers for Disease Control, the National Institute on Drug Abuse, and the Department of Defense have demonstrated that laboratories monitored in this manner are virtually 100% accurate.

5. These measures assure the non-drug user of not being falsely accused of drug use. However, proper safeguards must also be taken to protect the innocent from the clever drug user that will take advantage of every opportunity to go undetected, to continue in his or her drug use until he or she is so seriously affected so as to cause work-related problems, accidents and the like.

6. The best example of the effectiveness of testing on a random or unannounced basis may be seen in the military, especially in the Navy. Faced with the reality of a staggering 48% level of illegal drug use amongst enlisted personnel in 1981, the Navy randomly collects 2 million specimens a year, averaging about 3 tests per year per person. This one step alone has been the major factor in reducing drug use to below 4% today. A study conducted by the Navy in 1984 is attached as Exhibit B.

WHAT DO DRUG TESTS MEASURE?

7. In spite of the demonstrable effectiveness of drug testing to detect drug users and to discourage others to stop or never start using, McBay and Estrin, in their affidavits, allude

to the notion that drug tests are ineffective because they do not measure impairment or neurological dysfunction. It is irresponsible to suggest that a health and safety approach to eliminating drug use must wait until the victim is visibly impaired, involved in an accident, or neurologically damaged.

8. It is not made clear in the McBay and Estrin affidavits that, although some drugs are excreted in the urine as their inactive breakdown products, i.e., metabolites, the presence of most drug metabolites in the urine is direct proof that the parent, psychoactive drug is still present in the body. The whole purpose of metabolism is to convert the usually fat soluble drug (a physical property that permits the drug to penetrate the brain) into a more water soluble form that can be more easily eliminated from the body.

9. For example, the major active component of marijuana, delta-9-tetrahydrocannabinol (THC), is extremely fat soluble and will not be excreted by the body unless it is metabolized. The body metabolizes THC into several metabolites, each of which is more water soluble than THC. The most prevalent of these is THC-9-carboxylic acid (THC-acid), which is made, in turn, even more water soluble by linking (conjugating) it to the very polar glucuronic acid. Thus, when THC leaves the tissues, like the brain, lung, heart, etc., where it is stored, it is rapidly converted to the metabolites, which in turn are rapidly excreted. There is a mathematically based relationship between urinary excretion of metabolites and THC in the body. Willette, R. E. Feasibility Assessment of Chemical Testing for Drug Impairment. Washington, D.C.: Department of Transportation, 1985. (Exhibit C). For example, the THC-acid conjugate has an estimated formation rate constant of 0.4 (which is equivalent to a 40% conversion per unit time) and a half-life of less than eight hours.

10. The excretion of other drugs of abuse differs significantly. Most drugs are excreted unchanged or along with their metabolites. Cocaine itself is excreted into urine in

varying amounts, depending upon the dosage. It is generally detected in relatively low concentrations compared to its major metabolite, benzoylecgonine. Morphine, the metabolite of heroin, is excreted unchanged along with its major metabolite morphine-3-glucuronide. Phencyclidine (PCP) itself is the sole focus of urine tests. Amphetamine, methamphetamine, all barbiturates, and LSD are excreted as such. The notion that urine tests do not detect active drug or metabolites that unequivocally demonstrate the presence of the drug in the body is unfounded.

11. Unfortunately, the relationship between concentrations of certain drug metabolites in urine and their parent drugs in the body is obscured by fluctuations in urine flow, sometimes in differences in metabolic rates, and other individual characteristics. It is, therefore, not surprising that studies have been limited to correlating the effects of drugs to their concentrations in blood. Concentrations of drugs and/or their metabolites in urine, however, are infinitely easier to detect and significantly less intrusive to obtain in comparison to blood.

12. Another issue raised by McBay in his affidavit is that of establishing appropriate detection levels or cutoffs. He states that they are "relatively high" and would generate "a substantial number of false negative readings..." [Para. 9], although he recognizes that the cutoffs are designed to minimize the possibility of false positive results. The initial test cutoffs designated within the "Scientific and Technical Guidelines for Drug Testing Programs" issued by the Department of Health and Human Services, specify the manufacturer's recommended cutoffs as approved by the Food and Drug Administration. These are based on empirical studies that establish a cutoff concentration that clearly distinguishes between truly negative specimens and those that contain a specific amount of drug and/or its metabolites. There are two different cutoffs levels available for cannabinoids (marijuana), i.e., 20 and 100 ng/ml of the reference THC-acid. The upper detection level was chosen because it has been the level used by the military for the past five years. This was selected to virtually eliminate the possibility of detecting any

level of passive inhalation of marijuana smoke and to give the drug users an opportunity to stop using. A detection system designed to catch all drug use would overburden the resources available to provide assistance to those detected. The military has dramatically reduced drug use amongst its ranks by detecting those with significant drug levels and deterring other drug users to stop. In fact, the use of these "relatively high" cutoffs assures that only the most recent use or the heavier, more frequent users will be the ones detected.

13. McBay in his affidavit also suggests that the use of a single marijuana cigarette can produce a positive urine result for up to a week. No scientific study supports this. At the prescribed detection level of 100 ng/ml, the smoking of a large marijuana cigarette can be detected for two to three days. Only heavy users will be detected for significant periods of time. *See* Ellis, G., et al., Excretion patterns of cannabinoid metabolites after last use in a group of chronic users, 572 Clin. Pharmacol. Therap. 38 (Nov. 1985). (Exhibit D). Detection periods for other drugs are considerably shorter.

14. McBay in his affidavit raises the question of falsely identifying individuals as drug users due to cross-reactivity in the common immunoassays used in the initial testing. He cites a number of nonsteriodal anti-inflammatory agents, like Motrin, that did once interfere in the 20 ng/ml cannabinoid test, but was subsequently eliminated by the manufacturer by reformulating the assay. He cites other examples that include amphetamine-like drugs that can be detected in the initial test, but which are quite unequivocally and properly identified in the confirmation test. He also ignores a very important aspect of the proposed program for federal employees. Only confirmed positive results will be reported and then only to a specially trained medical officer. In the strictest confidence, the medical officer will ascertain if there is a legal and reasonable explanation for the presence of the drug in question in the individual's urine. Even after a determination of knowing and willful ingestion of an illegal substance has been made, the

individual will be referred to another professional for evaluation and referral to appropriate counseling.

ACCURACY AND RELIABILITY OF DRUG TESTING

15. McBay, in his affidavit, suggests that there is considerable room for error in the testing even if the "Guidelines" are implemented. He offers no evidence to support this other than raising the possible areas for errors. This suggestion is supported on one hand by the fact that there are laboratories licensed to conduct drug testing that do poor quality work. On the other hand, there are a growing number of laboratories that do excellent work, most of which are currently in substantial compliance with the Guidelines. The laboratories operated by the military are an excellent example of how a system of regular inspections, open and blind proficiency testing, strict adherence to standard operating procedures, and other safeguards can produce exceedingly reliable results. Through Duo Research Inc., I conduct a similar program of inspections and quality control audits on a number of commercial laboratories. Although the exact number of potential federal employees that may be subject to testing is unknown, there is clearly sufficient laboratory capacity to handle it safely. Furthermore, several of McBay's peers in the forensic sciences are members of the National Institute on Drug Abuse Laboratory Accreditation Committee, which is charged with implementing a program to accredit and monitor drug testing laboratories servicing federal agencies. With this expectation, many commercial laboratories are already modifying their procedures to be able to meet these standards and become accredited. McBay's claim or suggestion that tests conducted under these standards are only 99% accurate is not supported by the evidence. With the appropriate safeguards in place, false positive results are exceedingly rare (the Navy has tested over 5,000 blind samples over the last four years without a false positive). False negatives are more common, as pointed out above, due to the bias in testing with a system that favors eliminating false positives. In our experience through

Duo Research's blind quality control program, no false positive has been generated since we started a year ago, and most laboratories maintain an acceptable level of better than 90% on properly identifying positive samples. We deliberately target our levels close to the designated cutoffs in order to properly challenge the rigor of the laboratories' standardization procedures.

OTHER ISSUES

16. In his affidavit, Estrin proposes that a computer-based neurobehavioral evaluation system (NES) may be more effective in detecting impairing levels of drugs. Although not an expert in neurobehavioral testing, I have co-directed joint projects between the National Institute on Drug Abuse and the National Highway Traffic Safety Administration in which drug effects on driving performance and related tasks were measured. As with any scientific test, including chemical tests for drugs in urine, there is a considerable body of data that needs to be generated to discern false positives from false negatives. For example, if a chemical test confirmed the presence of codeine in a person's urine, the medical officer could readily corroborate that the use of the codeine was under medical supervision. The only evidence offered for NES testing is that exposure to volatile solvents and ethylene oxide produces detectable differences in certain measures between exposed and nonexposed populations. It does not appear to be very well established what kinds of medical, emotional and other conditions may have to be explored by a reviewing medical officer to explain some deviation

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no synthetic substitute has become available to replace marijuana, the growers have resorted to many techniques that have continuously increased the potency of the plant over the years. Since the National Institute on Drug Abuse has started monitoring marijuana potency in 1975, the content of active ingredient, THC, has gone up over fourfold. Also, special growing procedures have yielded sensimillia, a form of marijuana that can be ten times more potent than marijuana was just ten years ago. The fact is that over the past 10 to 20 years, new and more potent drugs and more potent forms of old drugs have been introduced into the illicit drug market. The nature of drug abuse today is a far cry from what it was just 10 years ago, let alone 25 or 100 years ago.

I hereby declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.

April 17, 1987
Date

Robert E. Willette
Robert E. Willette, Ph.D.

The CHAIRMAN. Thank you.

Mr. Willard, I do not doubt that the rate of drug abuse among American workers has increased during the past several years. I think there is no doubt about that, but there seems to be an agreement among policymakers and the labor-management panel that testified at our first hearing that one of the first things that an employer should do when talking about or thinking about a drug testing program is to determine, first of all, if there is a drug abuse problem in that particular workforce.

Prior to the issuance of the Executive order, did anyone in the federal government conduct such a study or arrive at a finding that specifically identified a substance abuse problem in the five categories of positions covered by the order?

Mr. WILLARD. No, Mr. Chairman, there was no such analysis. I would have to say that I disagree with those who believe that you have to quantify the problem before you can do something about it.

One problem is that it is very difficult to know the extent of drug use without some kind of testing program, because a lot of drug users go to great lengths to conceal their habit. We do know that drug use is pervasive in our society, with 23 million Americans using drugs, and we have no reason to believe that federal employees are immune from this problem.

The CHAIRMAN. Excluding any formal study, has there been any documented trend or pattern of drug abuse among the groups of employees that have been targeted by or have been listed by the Executive order?

Mr. WILLARD. There have been some examples of drug problems among people who would be subject to it, but the basis for including these people was the sensitivity of their job duties, rather than the pervasiveness of drug use. For example, we do not believe that employees who have security clearances are more likely to use drugs than those who do not. We believe that the consequences of their doing it would be much more severe. So it is the job sensitivity that led to the inclusion, not the existence of a particular drug problem.

The CHAIRMAN. Anyone who has a sensitive security clearance, is that person included in the Executive order?

Mr. WILLARD. All of those people are subject to drug testing. Whether they are actually tested would depend on the agency head and the program they would develop.

The CHAIRMAN. Does it include the White House?

Mr. WILLARD. They would certainly be included.

The CHAIRMAN. Tell me, if you would, if there is a distinction between the random unannounced drug tests for employees and programs like the one described to us a couple of weeks ago that one of the Wall Street firms came up with, which was to go into a unit and have a meeting with a unit in question, indicate that there would be drug testing, that it would occur within a certain time frame, and that everyone from the manager, from the head of the department straight through to the steno pool and the mail boy, they would all be tested as opposed to the random testing in the sense that you just walk up and say, Mr. Willard, today is your turn.

Mr. **Willard**. I think, first of all, I have to point out that when we use the word "random" in describing the Administration's program, it does not mean random in the sense of arbitrarily, capriciously picking people out. In fact, the guidelines require that there be some mutually objective way of picking the people who would be tested so that, for example, you would have Social Security numbers that would be picked by computer or something akin to that. In fact, it is very important in our program for there to be safeguards so that supervisors cannot just arbitrarily pick out employees and say it is your turn to be tested, but rather that the people who are tested are generated in a truly random fashion as opposed to at someone's caprice or whim.

The **Chairman**. Has it been determined how that would occur?

Mr. **Willard**. It would be up to the agencies doing it. An agency might have a way of selecting Social Security numbers, say, whereby everyone whose Social Security number ends with a certain two digits would be subject to testing. Or, they could go by date-of-birth, as long as it is done on the basis that insures objectivity, so that employees cannot be singled out for harassment or intimidation.

The **Chairman**. How do you assure that if you leave it to each of the departments?

Mr. **Willard**. Because they are required to have a plan in place that provides that. It would not be left to each supervisor to say I am going to test so and so, but each agency would have to develop a plan. As to the two models you raised in your question, I think both have validity. The idea of testing everyone from the top to the bottom is I think a very useful approach. That is certainly the one the military has adopted, and I think it is important for high-ranking officials not to be excluded from whatever program we have because they do need to set an example.

Given the development of case law, our program is limited to employees in sensitive jobs because it is not clear whether the courts would approve of testing people in nonsensitive jobs such as the people in the mail room, for example. So, although I think that there is some merit in the idea of testing everyone from the top to the bottom, our program essentially will test the people more at the top, or at least those whose jobs have sensitivity and not the people in non-sensitive jobs.

The **Chairman**. Obviously you by your answer expressed a sensitivity to what the courts might or might not do. Is the Administration concerned that when serious questions about accuracy and reliability of these tests have been raised that adopting such an intrusive program might raise questions, constitutional questions? In addition, questions have been raised about the labs that handle these tests, including questions about the labs utilized by the Federal Aviation Administration. What kind of steps have been taken to ensure the accuracy and reliability and proper handling of the tests, and do you favor federal certification of the laboratories involved?

Mr. **Willard**. The steps that have been taken are in the form of guidelines issued by the Secretary of Health and Human Services, which we think are good guidelines that provide a good model to the private sector as well as to the Government. They include numerous safeguards to insure reliability. I think this is a very legitimate concern people have, to make sure that if testing is to be done that it is to be done in a reliable way. I think that our program goes to great lengths to do that, including a program supervised in the laboratories to make sure that they use the correct technology.

A good example for our program is provided in the military. They got off to kind of a rough start. There were problems with their program in 1982 not having proper procedures in place. They did a big shakeup and they adopted a procedure, and now they do literally millions of these drug tests every year without having problems with false positives. An important part of it is that they use blind quality control, that is, mixed in the samples are thousands of samples, some of which are spiked, and some of which are deliberately clear, that are submitted to the laboratories without the laboratories knowing those are quality control samples. So when the results are reported back, they can see whether the laboratories are making mistakes. In the 3 years that they have had the program in place, there have been no false positives reported, and that, I think, provides an additional safeguard.

The CHAIRMAN. How about the certification of labs, federal certification?

Mr. WILLARD. That is being handled by the Department of Health and Human Services.

The CHAIRMAN. So the Justice Department does not have a view on whether there should be federal certification or not?

Mr. WILLARD. Well, with regard to federal laboratories, laboratories being used for federal employees, there should be.

The CHAIRMAN. Certification?

Mr. WILLARD. Yes, that kind of control.

The CHAIRMAN. How about the larger and broader question of federal certification of labs used by private employers?

Mr. WILLARD. Well, we think that the guidelines that we promulgated should be followed, that the private sector should model its approach on what we have done in the federal government. We think it is certainly appropriate to have requirements in place to make sure private laboratories do reliable testing.

The CHAIRMAN. We heard some fairly graphic testimony at the first hearing about how easy it was for all employees to alter urine samples unless the sample was given under close observation. Does the government plan to have samples given in the presence of an attendant?

Mr. WILLARD. Not unless there is reason to believe that the employee is going to try to alter the sample. In our view, the other safeguards that are reflected in the HHS guidelines will insure the program's integrity in most cases. It is true that there are always going to be people who will try to cheat, and you may have some false negatives, but our whole program is skewed in the direction if we have to have mistakes, let them be false negatives. It is much better to have a few people slip through the net than to falsely identify someone as a drug user. So we have deliberately run the risk in the direction of maybe missing a few as opposed to running the risk of falsely identifying someone.

The CHAIRMAN. My staff has drafted a hypothetical question here, and I would like to go through it. Let us examine how the

Executive order program would operate, looking at a hypothetical case, and the hypothetical case they came up with is as follows:

Special Agent Jones, a 15-year investigator with a federal law enforcement agency, has received numerous commendations from his agency and from various law enforcement and civic organizations for distinguished service. He has initiated more arrests, made more arrests, seized more evidence and obtained more convictions than others in his agency. In short, he has been an outstanding agent in every respect.

Agent Jones' agency, pursuant to the Executive order, implements a random testing program, and Agent Jones takes the test. Both the screen and the confirmatory tests are positive. Special Agent Jones' agency has strict no-use drug policy. What happens to this agent?

Mr. WILLARD. Well, after the confirmatory tests, under the Executive order and the HHS guidelines, the next step would be review by a medical review officer. The agency would then meet with a physician and present any evidence that might explain why the test result was positive, whether it would be that he came into contact with drugs as part of his duties, whether it was taking a medication that might have produced a false positive, or whether he thinks there is some other kind of a mistake. The physician would then review all of the records that are available and make a judgment based on that as to whether or not to confirm that as a positive test result. Once that happened, then it would move back to the supervisory channel.

The CHAIRMAN. Assuming it has been confirmed?

Mr. WILLARD. Assuming it is confirmed, then the supervisor would make a judgment as to what kind of disciplinary action to take based on that evidence.

The CHAIRMAN. Does the supervisor have an option?

Mr. WILLARD. If it is a first drug use offense, the supervisor would have discretion. On the second offense, the person would be required to be fired.

The CHAIRMAN. Should there be or is there a rehabilitation alternative or some other option as a result of this first test that proved to be positive?

Mr. WILLARD. There certainly is. In fact, the Executive order requires every confirmed positive result to prompt a referral for rehabilitation. That is really separate from the question in the way of what disciplinary action to take, and there is no requirement that people must be fired or disciplined that first time. But, obviously, in some very sensitive jobs, it would be inconsistent with the employee's duties to keep someone on after they have been determined to be using illegal drugs.

The CHAIRMAN. You seem pretty confident that the safeguards that are set up by HHS will not result in the abrogation of the rights of the employee who, as we heard testimony about, eats a roll with poppy seeds and tests positive or has, in fact, had their sample mixed up with someone else's sample.

We have both worked in the federal government for a while. We know how well bureaucracies work. These kinds of things happen every day, but you seem pretty satisfied that is not a real problem for Agent Jones or for anybody else. Is that right?

Mr. **Willard**. Well, Mr. Chairman, as someone who also is subject to the testing requirement, I do not take it lightly. We have gone to great lengths to try to design a program with many safeguards, so that there would be numerous protections against that kind of a result. I share your skepticism about whether a massive bureaucratic operation can ever be perfect. I think that we have some reason for hope, however, in that we have the experience of the armed services, which is now testing millions of samples a year. If something is carefully designed, it can be reliable. We would certainly welcome suggestions about how to improve the administration of the program to make it more reliable. We put the guidelines out publicly several months ago, and we are interested in hearing any suggestions for improvements in them.

The **Chairman**. What is your legal judgment and the judgment of the department as to the constitutionality of testing federal employees who are clearly not in sensitive positions, because one of the purposes here, I assume, is to have an impact upon drug consumption in society, not merely to protect security interests and concerns that we in the nation have. Have you examined that from a constitutional standpoint or gone beyond the four categories you have included?

Mr. **Willard**. I think that is a difficult question, Mr. Chairman. As you know, the Executive order does not go that far because there were doubts about how that would be resolved in the courts. We feel much more confident that where you have employees in a sensitive category, that the court would uphold drug testing as constitutional. So we have not had to address the non-sensitive employee category because that is not covered under the random testing requirement. I think that is something we are really going to have to wait to see how the law develops in this area.

The **Chairman**. The case law, as you pointed out, is somewhat spotty and not all the cases fall on all fours. In the 1979 case, *Delaware* v. *Krause,* the Supreme Court ruled that stopping motorists or drivers for license inspections without any factual identification that the person was improperly licensed was unconstitutional. I guess you would argue that the circumstances that you in fact have—not that that falls on all fours either—but I guess you would argue that there is a standard and safeguards have been built into your program to keep it from being arbitrarily applied.

Mr. **Willard**. That is correct, Mr. Chairman. I believe that it was Justice Blackmun who indicated if you had a case where people were selected in every tenth car, that would be all right, but you could not allow the police to pick up and stop them. Essentially, those are the kind of guidelines we tried to follow in designing that program, so random testing would be truly random, and would be subject to well-defined criteria and procedures so as to protect people from being harassed or intimidated for improper procedures.

The **Chairman**. Mr. Grassley?

Senator **Grassley**. I missed your testimony because we just had a series of votes, but I think unless you have answered it in your testimony, I am interested in whether or not there are any preliminary things that can be done, such as observing or taking blood pressure or asking an employee, you know, like the Los Angeles Police Department does, to walk a line. Are there preliminary steps that can be taken, as opposed to just telling this guy his number is coming up. And I presume the way the present program is, he submits himself to a blood or urine test, right?

Mr. **Willard**. That is correct.

Senator **Grassley**. Is anybody doing anything along that line? Did the federal government consider that and, if they did, did they reject it or does it still have a possibility for being used?

Mr. **Willard**. Certainly, Senator, we are looking at a variety of techniques for dealing with the problem. I have attached with my prepared testimony submitted for the record several declarations from experts in this field on precisely that issue, and what they point out is that, unlike alcohol use, where you do have these kind of field tests that are available, a lot of the symptoms of illegal drug use are more difficult to detect, even with training. Drugs, for example, may not impair the ability of a person to walk a straight line, and yet their judgment and memory may be impaired. So, alcohol is different in many ways from cocaine or marijuana, and to date you do not have the kind of readily available field tests that would allow you to identify someone who is using drugs.

Senator **Grassley**. I am not so sure as I think of what the Los Angeles Police Department did, that their observations were just related solely to the use of alcohol. It was my judgment that other substances were involved as well.

Mr. **Willard**. It certainly is true, Senator, that you can detect some illegal drug use through observation, and I think it is worthwhile and the President's program includes training supervisors to detect it. As the declarations we submitted point out, there are reasons why that is not fully satisfactory.

Senator **Grassley**. So it has been considered and rejected. So you kind of feel the only effective way to do this is to go immediately to the urine and blood samples?

Mr. **Willard**. We think that is the only objective and effective way to determine drug use. Another advantage of that, as well, is that you can determine illegal drug use off-duty, and, for people who are in positions of sensitivity, it is just as much of a concern if they are using cocaine on weekends and if they are using it on the job, because that indicates their vulnerability to blackmail and other problems of that nature.

Senator **Grassley**. I believe your last sentence just triggered another question I have. The federal government then did consider that it was not a violation of any constitutional rights to privacy to be concerned about the off-duty use of drugs?

Mr. **Willard**. Exactly. In fact, the President's order provides that off-duty, as well as on-duty, use of illegal drugs is simply incompatible with federal employment and renders an individual unsuitable.

Senator **Grassley**. How did the courts—do they look at that any differently, off-duty use of drugs versus how it affects your operations during the time you were on the job?

Mr. **Willard**. Well, this is still an area that is not very well developed in the law. Our view is that since off-duty use of drugs is illegal, that the government can insist that its employees refrain from that kind of illegal conduct as a condition of employment. There is a question about whether that has a nexus to the employee's duties, and that maybe would have to be decided in the context of specific cases. Our view is and what we would advocate to the courts is that if someone wants to hold a position of trust and confidence in government employment, then requiring them not to use illegal drugs off-duty is a reasonable condition to place on them.

Senator **Grassley**. Thank you, Mr. Chairman. I have no further questions.

The **Chairman**. I have two questions to follow up on what Senator Grassley has raised.

This notion that if an employee commits and violates a law while off-duty, engages in an action that is illegal while not on the job and unrelated to their performance on the job, does that apply to other actions as well as the consumption of drugs illegally?

Mr. **Willard**. The way the law has been applied by the Merit Systems Protection Board, as I understand it, is that particularly serious kinds of criminal offenses can be treated in that way. You know, if someone commits arson or murder or something like that off-duty, that you can remove them from federal service without having to show that that somehow affected their actual work because it is such a serious offense. Obviously, there are other offenses that may be so trivial that they would not justify a finding.

What we have tried to do and what the President did, I think, in the Executive order, was to express his views as head of the executive branch that illegal drug use is so serious that it ought to be viewed as falling into the category of offenses that are disabling in federal employment.

The **Chairman**. Is there a distinction made between having been convicted of and having been accused of? For example, a federal employee in a sensitive position who has beaten his wife, not been convicted, but been accused of it, how is that presently treated under the system?

Mr. **Willard**. The standard of proof is quite different for administrative action than for criminal action. Obviously, if you get a conviction, it is proof beyond a reasonable doubt and trial by jury, whereas the government can deny someone a clearance on a background check based on its administrative judgment about the facts.

The **Chairman**. Can they fire them?

Mr. **Willard**. They can fire them also. Many employees have the right to appeal that decision to the Merit Systems Protection Board, and ultimately the courts, but it is a different standard of proof. It is not the criminal standard. It is an administrative standard.

The **Chairman**. One last question, and maybe Senator Grassley got into this. Were there any less intrusive ways that were contemplated than urinalysis? Was there anything short of that that was considered?

Mr. **Willard**. As I indicated to Senator Grassley, we did submit some declarations indicating it is not as easy to detect drug use as it is alcohol use by field observation, according to the experts in the field, because many of the symptoms are less obvious. You may be able to smell alcohol on someone's breath. They may be able to walk a straight line and still have their judgment impaired. Still, the concern is about off duty, which we discussed a moment ago. As far as other technology goes, there have been reports about things such as being able to test air samples and saliva and so forth, which certainly would be less troublesome to an employee, but at the moment the technology is not there for it to be reliable. So our conclusion was that this is the only technology that is currently available, and of a demonstrated reliability, that we can use for this purpose, but we are certainly continuing our efforts. If, in a year or two from now, we can substitute a kind of test that is not as personally offensive to people, we would certainly want to do that.

The **CHAIRMAN**. Thank you.

Do you have anything else you would like to add?

Mr. **WILLARD**. No. I appreciate the opportunity to be here, Mr. Chairman, and we would be happy to work with you further on this issue.

The **CHAIRMAN**. Thank you.

Our next witnesses will come as a panel, if they would, Mr. Robert Tobias, national president of the National Treasury Employees Union; David G. Evans, private attorney, Lawrenceville, New Jersey; Allan Adler, legislative counsel, American Civil Liberties Union; Erwin Griswold, partner, Jones, Day, Reavis & Pogue, Washington, DC; and Robert Van Nest, partner, Keker & Brockett, San Francisco.

Thank you very much. Let Mr. Griswold sit wherever he wants to sit. You are so esteemed you could sit up here.

Mr. **GRISWOLD**. I just want to sit where my sign is.

The **CHAIRMAN**. My staff is new and a little younger, but we will get the signs straight here. Your sign can be placed wherever you would like it to be placed, Mr. Griswold.

I welcome you all, and I am told that the order of witnesses on the panel is in some part, small part at least related to appointments and other obligations each of you have, so I will stay with the list here.

We would like to begin with your statement, Mr. Tobias.

To the extent you can all limit your statements to the range of 10 minutes—I will not hold you fast to that—you will have your entire statement placed in the record. But it would facilitate being able to get into a dialogue here. I would not only like to ask each of you questions, I quite frankly would also like to hear how you agree or disagree with one another.

So why do we not begin, Mr. Tobias, and again for the record identify yourself and who, if anyone, you are representing, and then proceed with your statement.

STATEMENTS OF A PANEL CONSISTING OF ROBERT M. TOBIAS, NATIONAL PRESIDENT, NATIONAL TREASURY EMPLOYEES UNION; DAVID G. EVANS, ATTORNEY, LAWRENCEVILLE, NJ; ALLAN ADLER, LEGISLATIVE COUNSEL, AMERICAN CIVIL LIBERTIES UNION; ERWIN GRISWOLD, ATTORNEY, PARTNER, JONES, DAY, REAVIS & POGUE, WASHINGTON, DC; AND ROBERT VAN NEST, PARTNER, KEKER & BROCKETT, SAN FRANCISCO, CA

Mr. **TOBIAS**. Thank you, Mr. Chairman.

I am Robert Tobias, president of the National Treasury Employees Union.

This Administration has established a random urine testing program in which 1.1 million federal employees are eligible for testing. You have heard testimony of Mr. Willard just a few minutes ago who tried to give the impression that this was some small program limited to a few people, but in fact 1.1 million employees are eligible for testing.

We believe this program is a substantial invasion of the individual's privacy. It fails to realistically address, let alone assure, a drug-free workplace. In fact, it is a public relations ploy contrived by this Administration to get votes in the 1986 political campaign.

There is no question that this program offends the employee's dignity and even individual privacy. In order to remove the program from the abstract or theoretical, let us follow some person. Mary Green is a GS-3 clerk who has been ordered to go to the collection center to present a urine sample. The collection site is secured and monitored by a collection site person. She must surrender the unnecessary outer garments. While she is disrobing, the collection site person notes any unusual behavior or appearance. If the collection site person has reason to believe that Mary may adulterate her sample, the monitor may watch her urinate directly. Once she provides a sample, the sample is checked and if it is not sufficient, she has to remain, drink some more water and provide an additional sample. There are very few activities more private or personal than passing urine, therefore there must be substantial justification for allowing this significant invasion.

Yet, what we discover is this whole program is put into place, millions of dollars obligated, without any research to determine if the federal workplace is already drug free. In fact, the evidence that has been already prepared and submitted by the Government Accounting Office shows that the use of drugs in the country at large bears no relationship to the federal employee population, particularly with respect to the fact that the federal workforce, 95 percent of the federal workforce is over 26 and the average age is 42. The greatest amount of drug use in this country is, of course, for those under 26. There is no data available and there is no study whatever of the cost to the federal workplace of drug use, and the U.S. Customs Service, one of the first agencies to implement a program, stated from the outset that it had no evidence of employee drug use or drug abuse.

It seems to me that federal employees must not be asked to sacrifice their constitutional rights on mere speculation. It would have to require proof and of a legitimate government interest and certainly no evidence has been offered here. All we have is speculation.

We also should not be asked to sacrifice constitutional rights to a process which cannot guarantee the tests will produce accurate results. There is certainly no guarantee that the machines which are used are themselves working properly. But even if they are, one cannot eliminate the possibility of human error in the chain of custody, mailing procedures, misstated readings, miscalibration, whether they properly cleaned the machine or erroneous interpretation by the operator.

I noted in Mr. Willard's testimony there had not been any false positives in 1.8 million tests. I suggest that it is impossible, the presumption is so large, that it is impossible to disprove a positive test. So it does not surprise me, that statistic.

But most importantly, we must note that urine testing does not advance the stated goal of improving workplace safety and enhancing productivity because the test does not measure impairment on the job and does not measure intoxication, but tests do exist developed by physicians and psychologists as part of an automated, computerized test which measures neurocognitive and neuropsychological aspects such as short-term memory, reflexes and hand-eye coordination and concentration. These tests can measure impairment from organic disease and abuse of drugs, including alcohol. So there are tests available on the market today that could be used, could be installed to take care of this problem of safety.

If this Administration were truly serious, it would be spending money to put these tests in the workplace tomorrow. It is not surprising that the Administration is not serious, because the program was developed in response to the President's Commission on Organized Crime. The Commission was not interested in the federal workplace. The Commission suggested drug tests as a method to deter drug use in the United States. The Commission wanted to somehow thwart drug demand. The Commission wanted to eliminate criminal activity and drugs coming into the United States.

It seems to me that the methods of dealing with that problem are separate and apart from whether we have drug testing of federal employees. So this Administration in the context of the 1986 political campaign implemented a drug testing program for federal employees. The program has been politicized in concept and in implementation. If this Administration wanted to really deal with drugs in the federal workplace, it would have immediately instituted the neurocognitive and neuropsychological tests, it would have beefed up its employees' assistance program so it is a meaningful program, rather than one that is virtually a sham. It would institute a training program for supervisors and initiate urinalysis testing based on reasonable suspicion for those involved in health and safety and probable cause for all others.

I think it is time to move this issue off the political agenda, out of the courts and establish a tremendously effective constitutional program to eradicate drugs, all drugs, including alcohol, from the federal workplace.

Thank you, Mr. Chairman.

[The statement of Mr. Tobias follows:]

NTEU
The National Treasury Employees Union

TESTIMONY BEFORE THE
COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE
HONORABLE JOSEPH R. BIDEN, JR., CHAIRMAN
CONCERNING

DRUG TESTING IN THE WORKPLACE
BY
ROBERT M. TOBIAS
NATIONAL PRESIDENT
NATIONAL TREASURY EMPLOYEES UNION
MAY 13, 1987

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Thank you Mr. Chairman and other distinguished members of the Committee for this opportunity to discuss the issue of drug testing in the federal workplace. My name is Robert M. Tobias, National President of the National Treasury Employees Union. NTEU is the exclusive representative for approximately 120,000 federal civilian employees located across the continental United States, Alaska, Hawaii, and Puerto Rico.

We do not appear today to argue that federal employees should have the right to use illegal drugs. We urge, rather, that there are constitutional limits on the government's investigation into the off-duty behavior of its employees. NTEU has consistently opposed both publicly and in court the efforts of this Administration to impose unwarranted, unwise, and unconstitutional drug testing on federal employees.

NTEU is currently engaged in two legal challenges to drug testing in the federal workplace. Our first suit was filed in response to the U.S. Customs Service's initiation of a drug testing program which would require a one-time drug test for applicants and employees seeking promotion into positions where there would be direct involvement in drug interdiction. Our successful challenge to drug testing in the Customs Service was overturned in the Fifth Circuit Court of Appeals.1/ However, we have filed a Writ of Certiorari, and a Motion for a Stay of Judgment Pending Application for a Writ of Certiorari. NTEU believes it will prevail in both

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1/ NTEU, et al v. William von Raab, Commissioner, United States Customs Service, Case No. 86-3833 (5th Cir., April 22, 1987).

instances, and will, ultimately, cause the 5th Circuit's decision to be reversed.

NTEU believes that the United States Supreme Court will grant review of the 5th Circuit's decision because it is the first decision by a court of appeals to approve urine testing of federal employees conducted in the absence of individualized suspicion.[2/] Furthermore, that court recognized that this case involves "serious questions of substantial import to the Customs Service and its employees and to the citizens of this country." Order Denying Customs' Motion for A Stay Pending Appeal (January 14, 1987), at p. 4. In addition, many more such cases are and have been working their way up through the courts, both state and federal. Still more cases will be filed in the wake of President Reagan's Executive Order, which requires all federal agencies to implement comprehensive urine testing programs. E.g.

2/ The lower courts that have considered challenges to urine testing of federal employees without individualized suspicion have split on the issue of its constitutionality. Two district courts have ruled (on motions for a preliminary injunction) that random urine testing of civilian employees of the Department of the Army violates the Fourth Amendment, and one district court recently upheld such testing. American Federation of Government Employees v. Weinberger, 651 F. Supp. 726 (S. D. Ga. 1986) (random testing unconstitutional); Thompson v. Weinberger, Civ. No. R-87-393 (D. Md., Mar. 2, 1987) (same); Mulholland v. Department of the Army, Civ. No. 87-317-A (E.D. Va. April 20, 1987) (random testing of aircraft maintenance personnel upheld). Another district court recently denied a request filed by air traffic specialists to enjoin the Federal Aviation Administration's program of annual urine testing. National Association of Air Traffic Specialists v. Dole, Civ. No. A87-073 (D. Ala., March 27, 1987).

National Treasury Employees Union, et al v. Reagan, et al, No. 86-4058 (E.D. La.) (challenging Executive Order 12564). The state of the law concerning employee drug testing is nonetheless "unsettled," and the courts that have considered such testing have employed diverse analyses and drawn divergent conclusions about its constitutionality. Order Denying Customs' Motion at 5 & n.5, citing cases.[3]

Given the great public importance of the questions raised, and the explosion of cases in which the questions present themselves, it is inevitable that the Supreme Court will soon be required to give guidance to the lower courts concerning the proper analysis to be applied to determine the constitutionality of public employee urine testing.

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[3] Although the 5th Circuit Court's decision does not squarely conflict with the ruling of the two other courts of appeals that had adjudicated challenges to public employee urine testing programs, it does appear to approve testing of a broader class of persons than either of those other courts. In the earliest case, Division 241, Amalgamated Transit Union v. Suscy, 538 F.2d 1264 (7th Cir. 1976), cert denied, 429 U.S. 1029 (1976), the court of appeals upheld reasonable suspicion and post accident testing of bus drivers because of their important public safety responsibilities. In McDonell v. Hunter, 809 F.2d 1302 (8th Cir. 1987), the court of appeals upheld random urine testing of prison employees who had regular day to day contact with inmates in medium and maximum security prisons because of the highly dangerous nature of prison work. This Court's decision, however, upholds urine testing of a wider class of employees, ranging from those in high administrative posts to clerical employees, on bases other than the immediate impact their duties have on public safety. In addition, it upholds a urine testing program that, unlike those in Suscy and McDonell, the Court recognizes is less than fully effective to either detect or deter illegal drug use.

NTEU also believes that there is a substantial possibility that the 5th Circuit's decision will be reversed by the Supreme Court. Specifically, the plurality's approach in O'Connor v. Ortega, No. 85-530 (March 31, 1987) in conjunction with the strong dissent by four Members of the Court, strongly suggests that some level of individualized suspicion--perhaps probable cause--would be ruled necessary prerequisites to employee urine testing. The Court's decision casts serious doubt upon the constitutionality of search programs like the Customs plan, where no individualized suspicion at all is required before instituting an intrusive search. In light of the O'Connor decision, NTEU maintains that there is a substantial possibility of obtaining reversal of this Court's ruling.

Our second case is a challenge to the President's broader program embodied in Executive Order 12564.[4/] That Order requires widespread urine testing across all sectors of the federal workforce, and imposes severe disciplinary penalties, including removal, against any employee who either objects to providing a urine sample for chemical analysis or

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[4/] NTEU, et al. v. Reagan et al., No. 86-4058 (E.D. La.).

whose urine sample is reported positive for specified illegal drugs. We filed briefs in that case on April 8. The hearing, originally scheduled for April 30, has been postponed.

Let me describe what federal employees are threatened with.[5] Let us follow Mary Green, who has been ordered to report immediately to a specified "collection site" for a urine test. Mary has been a federal employee for 15 years, and is now secretary to a high level manager. Her position has been designated for random drug testing, but she has never given anyone reason to believe she uses drugs.

Upon reporting, she finds that "collection site" means bathroom. It is attended by a "collection site person," who is in the bathroom in order to scritinize Mary's appearance and behavior while she urinates, to make sure she is really Mary Green, and to see that Mary does not adulterate or substitute her sample.

The collection site has been "secured" prior to Mary's arrival. Toilet bluing agents have been placed in the toilet tanks, and all other sources of water have been cut off. Mary is required to provide identification and surrender "unnecessary outer garments" and personal possessions. Failure to present proper identification would be duly noted. While Mary disrobes, the "collection site person"

5/ The description that follows contains only requirements enumerated in the HHS Guidelines, "Scientific and Technical Guidelines for Drug Testing Programs," Department of Health and Human Services, Feb. 13, 1987.

observes and would "note any unusual behavior or appearance." When Mary is ready to urinate, she will be required to wash her hands. During this period, the monitor keeps her under scrutiny and assures she is out of range of any water supply, soap dispenser, or cleaning agents.

Mary is allowed to provide her urine specimen in the "privacy" of a stall or behind a partition, while the "collection site person" again notes "any unusual behavior." Had a public restroom been used, the collection site person would remain in the restroom (although outside the stall) while Mary "voids" into a specimen container. Had the agency had "reason to believe" that Mary might alter or substitute the specimen, the agency could order that the monitor directly watch Mary urinate, exposing her genitals and urinary stream to the monitor's view. Mary is instructed not to flush the toilet herself after she "voids"; the collection site person must flush the toilet.

After receiving the sample, the collection site person must confirm that Mary has provided a sufficient amount of urine. If she has not, she may be detained and required to drink additional liquid. Thereafter, Mary is allowed to wash her hands. The collector then checks the sample's temperature and "conducts an inspection" of its color and character for signs of adulteration. If the temperature falls outside a certain range, Mary must try again, this time under the direct observation of the monitor.

The monitor follows her instructions to "always attempt to have the container or specimen bottles within view before and after the individual has urinated, and before and after it is sealed." Chain of custody procedures must be followed to attempt to prevent switching and mislabelling of samples.

The urine sample is then subjected to laboratory analysis. If Mary has not used one of the specified illegal drugs (the specimen must be screened for at least marijuana and cocaine), she should have nothing further to fear, except for two things. First, though perhaps unlikely, laboratory errors can occur in chain of custody procedures or in contaminated glassware or the like. For example, several months ago, the Department of Transportation announced that positive drug test results from the train crew involved in the highly publicized fatal wreck last January may have been flawed by "procedural irregularities " at the laboratory also used by the FAA and the Federal Railroad Administration.[6] Second, if Mary is one of the many who take one of the specified drugs under prescription, yet another invasion of privacy occurs. That drug will be detected and the medical condition will have to be revealed. Thus, legitimate use of codeine, morphine, tincture of opium, and others will have to be documented to the agency's satisfaction.

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[6] See John Lancaster, "Possible Flaws Found in Conrail Drug Tests," Washington Post (April 2, 1987).

Does this sound like a medical examination? It should be no surprise that employees are offended by these tests. Nor should it be a surprise that we are prepared to litigate their constitutionality to the highest court, if necessary.

Our cases and the many other challenges to urine testing are grounded in the Fourth Amendment's protection against unreasonable search and seizure by the government. In _O'Connor_, _Supra_, the Supreme Court decisively rejected the Justice Department's argument that the Fourth Amendment does not protect government employees against unreasonable search and seizure by their employer. In that case all members of the Court agreed that the government employee retains a reasonable expectation of privacy even in his desk, office, and files. The Court recognized that even greater privacy is involved in the employee's belongings brought into the workplace. Necessarily, the highest of privacy expectation attaches to the employee's own body and bodily functions.

Since there can no longer be any question that the Fourth Amendment applies to government employee urine testing, then, the analysis must focus on whether the testing is "reasonable." The courts will balance the harm to privacy expectations against the necessity for the search. Our position is that urine drug testing intrudes most heavily on an individual's sense of privacy and dignity. Against that considerable intrusion must be balanced the government's interest in and need to conduct the tests. It is undisputed that urine tests do not and cannot measure in any way worker impairment, intoxication, or on-the-job use. In addition, urine tests are expensive if properly conducted and fraught with the risk of devastating error, even when the most sophisticated technology is employed. Perhaps most important, as I will discuss more fully in a moment, there is no demonstrable problem of drug use among federal employees, nor any reason to believe that a drug problem exists. Therefore, urine testing cannot be said to be necessary to meet any reasonable goal; balanced against the profound invasion of privacy it represents, drug testing cannot meet the Fourth Amendment's reasonableness test.

Chemical surveillance of federal employees is an outrageous invasion of their privacy. It requires employees to urinate on demand under the close scrutiny of a stranger, to submit to chain of custody procedures usually reserved for criminals, to disclose confidential medical information, and to reveal, through laboratory analysis of their bodily waste, details of off the job activities during prior days or even weeks.

Why is this being asked of federal employees? How have they inspired their President's or their nation's distrust? What have they done to suggest that they should be the targets of this chemical surveillance? The answer is, nothing.

Our Constitution and our society tolerate some invasions of privacy when they are necessary to meet a known and serious danger that cannot be met in a non-intrusive way. We walk through magnetometers at airports, a relatively non-intrusive search, so as to prevent the known and dramatic danger of air piracy. We permit limited weapons searches of visitors and employees at prisons, because they are volatile situations where weapons and contraband are particularly dangerous, and the search directly abates the danger.

But this Administration has embarked on its drug testing crusade without any such justification. It has never bothered to examine the extent or the impact of illegal drug use by its employees. It purports to base its invasion of employee privacy and dignity on needs of workplace safety, efficiency, and productivity.[7/] However, it has never compiled evidence on workplace safety problems attributable to drug use; it has never attempted to analyze inefficiencies such as absenteeism or health costs attributable to drug abuse; it has never studied loss of productivity owing to employee drug use. It simply asserts, and expects us to believe, that these problems exist.

In fact, our research in connection with our litigation shows that very little is known about drug abuse in the workplace. Alarming "statistics" have been widely circulated by the burgeoning drug testing industry. This immensely profitable industry has obviously benefited from the attention currently focused on the nation's serious law

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[7/] *See* E.O. 12564 Findings.

enforcement drug abuse problem.[8] However, that industry has offered no facts or research that assists in measuring any problem in the workplace, either private or public. Nor has such research been undertaken by others.

To illustrate, let us look briefly at the two studies most commonly relied upon in discussions about the drug problem. The first is the National Institute of Drug Abuse Household Survey. The most recently published Household Survey, 1985, shows that there has been a steady decline in illegal drug use since the 1970's. The Survey certainly does not suggest, nor do we, that no law enforcement problem exists. But it clearly belies the argument that there is a new epidemic of drug use that requires dramatic new remedies in our work places.

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[8] As media and public attention has increasingly focused on the law enforcement problem, so have the profits increased in those sectors of private industry promoting drug testing and/or drug treatment programs. *See*, Weisman, Adam Paul; "48 Hours on Crock Street: I Was A Drug Hype Junkie," *The New Republic* (October 6, 1986), pp. 14-17. Industry sources state that the drug testing industry's profits have tripled and quadrupled in the past two years. *See* Nell Henderson, "Drug Testing Industry Flourishes," *Washington Post*, June 30, 1986. Gerard A. Marini, President of "Diagnostic Dimensions," a subsidiary of Hoffman-LaRoche (purveyor of "RIA" drug testing kits), has boasted that he has "no doubt this is going to be big, big business." Chapman, Fern Schumer, "The Ruckus Over Medical Testing," *Fortune Magazine* (August 19, 1985), p. 60.

Moreover, as the Comptroller General testified before the House Human Resources Subcommittee last fall, the Survey of drug abuse patterns in society will not justify imputing those patterns to the federal workforce. Drug abuse in the general population sharply declines after age 26. In that older population, 6.6 percent used marijuana, 1.2 percent cocaine, and less than one-half percent used hallucinogens or heroin. Ninety-four percent of the federal workforce is over 26, and the average age is 42. We agree with the Comptroller General that, given that profile, plus the screening processes and security clearances that precede federal employment, drug abuse among federal employees would be less--and we believe far less--than in the general population.[9/]

One of the President's most prominent "findings" in the Executive Order was that drug use "results in billions of dollars in lost productivity each year." The study most often cited for the estimate of productivity losses is the Research Triangle Institute's "Economic Costs to Society of Alcohol and Drug Abuse and Mental Illness: 1980," June 1984. That study, however, tells us nothing about the cost to the government associated with employee drug use, nor does it claim to do so. It measures "productivity" solely in terms of income, and the only significant finding regarding drug abuse is the finding that lower income levels are to be found among persons who smoked marijuana for thirty

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[9/] Statement of William J. Anderson and Henry R. VanCleve, U.S. General Accounting Office, September 10, 1986.

consecutive days at some past period in their lives. The study admittedly can find no impact on income from current marijuana or other drug use. Therefore, if the study is sound, it merely says that one who at one time was a heavy marijuana user can expect to earn less than one who was not. The study itself acknowledges that it establishes no causal relationship between drug use and lower income, and does not measure such factors as motivation to seek higher paying jobs.

However appropriate it may be to measure productivity by income levels, it is clearly absurd to use that "productivity" figure to estimate the costs of current drug use for American employers. Presumably, such costs are not unmeasurable: absenteeism, health care costs, accident rate, turnover rate, other inefficiencies, are objectively observable. They have simply not been studied, and that fact strongly suggests that no reason to study has shown itself. The Department of Health and Human Services was quite correct when it said in 1984:

> The fact is, very little is known about the complex relationship which undoubtedly exists between drug abuse, worker performance and productivity or the lack thereof, and how the work setting influences or is influenced by drug abuse.[10]

There is simply no evidence to suggest that the government as employer is incurring any significant costs attributable to drug abuse among its employees.

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[10] Drug Abuse and Drug Abuse Research, Triennial Report to Congress from the Secretary of Health and Human Services, 1984, at p. 26.

Even if a problem exists, undetected, the government as employer has never tried to address it with more effective, less intrusive methods. Among the obvious possibilities are supervisory training to detect possible problems (never mandatory before the Executive Order), full commitment to Employee Assistance Programs, and simple reflex and other tests for actual impairment on the job.

In short, considering that urine tests do not measure impairment on the job; that there is no demonstrable problem of drug abuse among federal employees, and no reason to believe that a new problem will arise; and that these tests are highly invasive of reasonable privacy expectations, they are unconstitutional when conducted without probable cause for most employees, and without at least individualized suspicion for highly sensitive positions directly affecting public safety. I turn now briefly to the problem of punishment for off-duty conduct and to the application of the probable cause or reasonable suspicion standards to the categories of employee in jeopardy under the President's program.

The centerpiece of the Administration's effort is "random and comprehensive" urine testing of current federal employees and applicants for employment. In addition, the Executive Order mandates specific disciplinary actions, including removal, that agencies must take in retribution against an employee who produces a "positive" urine sample or who is otherwise tagged as having used an illegal drug, whether on or off duty. This aspect of the Order, requiring agencies to punish and remove employees, without reference to their job performances, but instead on the basis of off duty conduct--even illegal conduct--violates current civil service law. That law forbids government actions against its employees based on their private activities, unless it can prove that the off duty conduct directly affects job performance. To the extent that the Order purports by fiat conclusively to establish this statutorily required nexus whenever an employee is identified as a drug "user" under the new program, the Order violates both the statute and the due process clause.[11]

The Executive Order and its implementing regulations direct and/or authorize agencies to require employees to undergo drug testing under at least four circumstances, all of which we contend violate the Fourth Amendment: first, random testing of "sensitive" employees; second, testing of any employee involved in an accident or unsafe practice, regardless of whether any suspicion of drug use by that employee exists; third, testing of any federal employee based on mere "reasonable suspicion" of illegal drug "use," whether on duty or off; fourth, testing of any applicant for any federal job as a condition of employment. Employees who refuse to submit to urinalysis where directed to do so will be punished with removal, and applicants who decline to produce a sample will be denied federal employment.

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[11] To complement his Executive Order, the President proposed that a "Drug-Free Federal Workplace Act of 1986" be enacted. Among other things, this Act would have amended the Civil Service Reform Act "to make clear that nothing in the Act would 'permit or require the employment of an applicant or employee' who uses illegal drugs." "Absent this change," the White House explained, "a drug-using employee might attempt to argue that his off duty drug use has no "nexus" or relationship to the performance on the job, and that under section 2302(b)(10) of Title 5, it would be a prohibited personnel practice to take disciplinary action against him." The "Drug-Free Federal Workplace Act," however, was never enacted.

Regarding the first category, the Executive Order and its implementing regulations require agency heads to establish a program for random testing of employees in "sensitive" positions. The pool potentially subject to testing includes all employees currently classified as "sensitive," a very broad category indeed. It also includes other employees whom the agency head wishes to add to the pool, because he believes their positions involve "law enforcement, national security, the protection of life and property, public health or safety, or other functions requiring a high degree of trust and confidence." Current "sensitive" positions include, in many agencies, clericals, accountants, lawyers, paralegals, and many other positions that are clearly not related to public safety or the national security.

Although the Justice Department has refused to provide, in discovery lists of positions currently designated as "sensitive," we believe that the very broad reach of the sensitive categories at IRS typifies all federal agencies. For example, at the Internal Revenue Service, all positions at grade GS-9 or equivalent, or above, are considered at least non-critical sensitive. These include attorneys, law clerks, paralegals, real estate appraisers, computer technicians, and so on. Many clerical positions are "non-critical sensitive."

Under the OPM Directive, agency heads may choose not to test all "sensitive" employees in the pool. They may not, however, decide not to test any employees at all, even if they believe the workforce is completely drug free, that its performance is beyond reproach, or that other less intrusive alternatives can meet the agency's need equally well. In our view, the random testing of employees without any individualized suspicion of illegal drug use that directly affects job performance, cannot pass constitutional muster.

Second, any employee may be tested for illegal drug use in an examination regarding an accident or unsafe practice. While we have no quarrel with the government's authority to order a urine test where there is at least reasonable suspicion to believe an employee was impaired at the time of the accident or "unsafe practice," the mere fact of accident, without more (such as indication that it might have been due to human error on the part of particular employees) does not provide a constitutional justification for subjecting employees to urine testing.

The third category of testing established by the Order and regulations authorizes testing any federal employee without notice, upon "reasonable suspicion" to believe that the employee "uses" illegal drugs. The President thus bestows upon agency heads, and by necessity government supervisors, the right to require a urine test of anyemployee without probable cause and without a warrant. The supervisor may order a urine test based on a mere suspicion that an employee has used illegal drugs, off duty or on. In fact, where reasonable suspicion of drug use exists, the OPM regulations authorize the agency to require particular employees to provide their urine samples under direct observation.[12]

Even if it were constitutionally permissible to require employees in certain sensitive positions to submit to a urine test where reasonable suspicion exists that they are impaired on the job, it is unconstitutional to test non-sensitive employees on the basis of mere reasonable suspicion of illegal drug "use" either on, and certainly off, the job. It must be appreciated that the courts have permitted searches on less than probable cause (i.e., reasonable suspicion) only in very limited, highly dangerous situations. To abandon the probable cause requirement just because the subject is a federal employee is absolutely unjustified under the Constitution.

Finally, under the order and regulations, applicants for any federal position may be required to produce a urine sample. An agency may test all applicants or may test only those who apply for "testing designated positions." It may decide to insert a drug test into a physical examination, where one is required. In any case, agencies are not required to possess any particularized suspicion before testing applicants.

12/ *See* FPM Letter Section 4(g)(3)(a).

Here, too, testing applicants for evidence of drug use without particularized suspicion violates the Fourth Amendment. Applicant testing violates the Fourth Amendment because it is not based on individualized suspicion. Moreover, applicant testing is ineffective, in that a positive result can be avoided by simply abstaining from drug use for a few days. A test that is ineffective to meet the stated goal cannot be constitutional.

In sum, probable cause still remains the constitutional standard for searching the vast majority of federal employees. Employees in the most highly sensitive of positions may no doubt be searched on reasonable suspicion. However, the search must be for evidence that the employee is impaired in functioning in that highly sensitive position, and where the search is especially intrusive, as are urine tests, the justification must be correspondingly compelling.

The President's program fails on all counts. It is an attempt, once again, to make a political point at the expense of those closest at hand: the nation's public servants.

The **Chairman**. Thank you.

Mr. Evans?

STATEMENT OF DAVID G. EVANS

Mr. **Evans**. Mr. Chairman, thank you for inviting me to testify today. It is an honor to be with such a distinguished panel.

I am an attorney in private practice in New Jersey, and I have advised both labor and management on how to properly set up constitutional and fair drug testing programs.

I believe the American people are in favor of properly administered drug testing programs. The studies I have seen indicate that. We had a study in New Jersey done by the Eagleton Political Institute, where over 70 percent of the citizens polled said they were in favor of drug testing as a means of insuring a drug-free workplace. I was informed earlier today that USA Today also did a poll where 77 percent of the people polled said they were in favor of drug testing as a means of preserving a drug-free workplace.

Testing is here to stay. Thirty percent of the Fortune 500 companies have drug testing programs, and it is expected within the next few years that an additional 20 percent will have programs. I think Congress and this committee have a wonderful opportunity to set the standard for both public and private drug testing programs.

I take the position that even private employers should set up drug testing programs as if they were public employers, as if they had a responsibility to protect the constitutional rights of their employees.

I want to look at two issues today in my testimony. The first one is the issue of accuracy and then I want to talk about fundamental fairness in establishing drug testing programs.

Are the tests accurate? One of the most recent cases dealing with this issue was the *Treasury Employees Union* case that was recently decided in New Orleans. The issue that was presented to the Appellate Court dealt specifically with the accuracy issue, and the court's opinion held that a screening test that is confirmed by a test of greater sensitivity—in this case it was the Syva Emit Test confirmed by GCMS—meets the legal standard. All tests, if they are going to be used to take any action toward an employee, should be confirmed by a test of greater or equal sensitivity. Other ways of insuring accuracy are: proper specimen collection, and allowing an employee to provide an additional specimen, and have it sent to the employer's laboratory, or the laboratory of the employee's choice. When, in addition, the test result comes back, it should be reviewed by an expert, preferably a physician who is familiar with the effects of drugs on the human body.

The federal guidelines, for example, provide for a medical review officer to sit down with the employee after a positive test has been confirmed and say, "You have a positive test, is there any other reason you could have shown positive other than illegal drug use?" That is a very fair procedure.

I am in favor of laboratory certification as a means of guaranteeing test accuracy. I think this committee has been given the impression that nationally there is a lot of slipshod techniques in the laboratories. This is not true. The majority of the States have laboratory certification laws. These are State laws in addition to any federal laws that may apply.

Again, I think that Congress has been given the opportunity to set the standard here by calling for laboratory certification and hopefully the States will follow.

Chain of custody is also extremely important in preserving test accuracy. I would be happy to provide the committee with detailed, chain of custody procedures that should be followed by both private employers and public employers. Chain of custody insures that the specimen that is collected is the specimen that is tested and that the test report is accurate.

The CHAIRMAN. We would appreciate that.

Mr. EVANS. I will certainly do that.

What about the issue of false positives? Is there a false positive? I do not think so. I think what we are referring to here is that there may be a positive test for what could be an illegal drug but upon examination the drug or other substance used was not illegal. There are other things other than illegal drugs that will give you a positive test, such as poppy seeds. I think you should have a medical review officer consider the evidence, and meet with the employee to discuss the positive result. There is no reason why you cannot just believe the employee when he says he has been eating poppyseed rolls and reject the positive test result.

What about the issue of fairness? Fairness to me encompasses due process, equal protection, and fourth amendment reasonable expectations of privacy. I am sure you are concerned about the fourth amendment. I used to be a public defender. The fourth amendment was my bread and butter for 2 years.

All of these concerns are very important and I think they can be dealt with and protected by a properly administered program. First of all, you must decide if you have a need for a testing program. I would advise a union or an employer against having a testing program unless there was a need for it.

The CHAIRMAN. Preestablished. How would you establish need?

Mr. EVANS. I would look at documented need by doing a study of the workforce—I thought it was interesting earlier when you asked for documentation of drug abuse among federal employees. Perhaps if you had discussions with people who ran employee assistance programs including those for federal employees, you would get your documentation. I do not know if there has been a formal organized study, but I know the people who run those programs and I can tell you that there is a lot of drug use among all employees, and federal employees are included in that.

I recommend in setting up a program that there be a written policy, jointly developed between labor and management. In most cases, the standard to initiate a test would be a reasonable suspicion standard, and that means there must be some evidence, some observation by a supervisor or someone else, that there is a possibility that an employee is under the influence of drugs while in the workplace.

The CHAIRMAN. That is very different than random testing, though, is it not?

Mr. **Evans**. I said in most cases, I am in favor of the reasonable suspicion standard. I am in favor of random testing if there is a safety or security need.

I would like to talk about the alternatives in having a drug testing program. The alternatives presented seem to be either to have no drug program at all in a company, or have one based on the model, which is reasonable suspicion based on observation by a supervisor. I would like you to think about this. If I was an employee in a company that has a reasonable suspicion drug testing program, and I was a member of a minority group and had all-white supervisors, I would be more in favor, I should think, of a random testing program because it does not put me at the mercy of subjective allegations of a supervisor. I know in New Jersey when I was in law school back in the early seventies, we sued the New Jersey State Police because we were able to prove that they were stopping cars that had people with long hair, men with long hair, more than they were stopping people who "looked respectable." If I was a young man with long hair and somebody said, "I think you are under the influence of drugs," I might demand a drug test. Drug tests may not be able to always show impairment, but it sure can show lack of impairment and it could be used as evidence to clear my good name.

With all testing programs, the specimen must be collected in a dignified manner. I think the guidelines of the federal government as promulgated and those of some of the States provide that dignity. Confidentiality is extremely important. In one of the leading cases, the *Shoemaker* v. *Handel* in New Jersey, the court in balancing our fourth amendment privacy concerns, emphasized the issue of confidentiality, and that one way of minimizing intrusiveness was to protect the confidentiality of the test results.

Finally, I think all test results that are positive and have been confirmed, and have been reviewed by a medical review officer, should only be used to initiate an evaluation of the employee to see if there is a problem and possibly to initiate treatment. The goals of evaluations and treatment serve to remove some of the "intrusiveness" of testing.

Mr. Chairman, that completes my testimony. I have prepared written testimony which I would like entered into the record.

Thank you.

[The statement of Mr. Evans follows:]

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TESTIMONY OF DAVID G. EVANS, ESQ.

Mr. Chairman and members of the Committee, for the last 17 years my experience has included studying, teaching, and writing on the legal aspects of alcohol and drug problems. Two books of mine have been published on these subjects and I have held faculty positions at Rutgers University and John Jay College of Criminal Justice teaching courses on the legal and criminal justice aspects of substance abuse. Since 1981, I have been the Chairman of the Alcoholism and Drug Law Reform Committee of the Individual Rights and Responsibilities Section of the American Bar Association.

In my academic and legal practice experience working on these issues, no issue has been as controversial as drug testing, nor has one spawned so much litigation.

My task today is to see if there is a middle ground to this controversy. How can the concerns of people of good will on both sides be brought together?

First of all, should there be a middle ground? Why don't we just ban drug testing? The opponents of drug testing argue that it is an invasion of privacy, testing is inaccurate, that asking someone to undergo testing presumes guilt, testing doesn't measure work performance, adulteration of test specimens is easy to do, and there are problems with due process, equal protection, and other fundamental rights. If they agree with testing at all, it is only for grounds such as "reasonable suspicion." In addition, some opponents argue that drug use is a personal matter, it should be legalized, and it should only be an employer's concern when the employee has impaired work performance.

The proponents of testing argue that drug abuse is a major health and economic problem and that testing is a valuable tool to help dry up the demand for drugs. They claim that most American workers do not use drugs and want a drug-free workplace. The proponents claim an equal concern about individual rights, but they assert that a properly planned and administered drug testing program can protect privacy, insure due process, and provide equal protection. They argue that the testing technology is highly accurate, especially when initial screening tests are confirmed, and that the tests provide objective, scientific evidence of drug use.

In studying this controversy by following the press reports, and reading the state and federal court cases and legislation, and having written three articles on the subject, my conclusion is that drug testing is here to stay; however, for its ultimate success, drug testing must be protective of individual rights. All testing programs, public and private, should be established in a manner that protects test accuracy, due process, equal protection, confidentiality, and offers a chance of rehabilitation for the drug and alcohol abusing employee. Testing should be used to protect and help people. It is not a device for "witch hunting" or for pursuing prejudice. Drug testing should provide freedom from fear and not add to it.

Is there a middle ground? Let me discuss some of the major legal issues that must be considered, and then provide drug testing guidelines that are protective of individual rights and seek this middle ground.

The Fourth Amendment - Search and Seizure - Privacy

Most lawsuits resulting from drug testing are based in whole, or in part, on an alleged violation of an employee's Fourth Amendment right to be free from unreasonable searches. Drug tests are generally regarded as searches; however, this is still being litigated.

These situations usually only apply to governmental employment or action. A private employer's drug testing program usually cannot violate an employee's constitutional right to be free from unreasonable searches unless the government is involved in some respect.

Courts generally hold that only public or government regulated industry employees have rights to a "reasonable" search by the employer. What is considered reasonable? First of all, absent justifying circumstances such as a substantial safety hazard, some incident or "individual suspicion" is usually necessary. The employer must have some reason to suspect an employee has used or is under the influence of alcohol or drugs. This suspicion should be based on specific objective facts and "reasonable" inferences drawn from those facts. This "reasonable suspicion" must be supported by circumstances strong enough to warrant a belief that the employee has, more likely than not, been using drugs at work or has been impaired by off-the-job use. If an employee is to be selected for testing on the basis of some reasonable suspicion, the standards for this suspicion should be fair and reasonable. Ideally, supervisors should be trained to identify work performance problems or other signs of drug use and to document these observations.

What are some criteria for establishing "reasonable suspicion."

1. A pattern of absenteeism, lateness, unusual or erratic actions, or deteriorated work performance.
2. Appearance of being under the influence - slurred speech, staggering, odor of alcohol, etc.
3. Arrest, conviction, or investigation concerning a drug related criminal offense.
4. Reliable information supplied by company personnel or others.

Freedom from all searches and seizures is not absolute. It must be subjected to a balancing test of reasonableness. The reasonableness of a search must be evaluated in the context of the place and nature of the employment and the employee's reasonable expectation of privacy. For example, there may be compelling reasons to test that override the need for individualized suspicion. Public safety, and other important public or employer interests, may permit random searches or employee testing even in the public sector. Such searches must be logically and factually justified and administered neutrally, with appropriate procedural safeguards.

Private industry is generally not as constrained by the Fourth Amendment; however, if private employer searches are unreasonably intrusive or clearly unfair, an employee may be able to sue under tort, contract, or state privacy law. The law may balance the employee's right to privacy and/or contract rights against the right of the employer to conduct business and enforce work performance standards.

Government and private employers should establish drug testing programs with protection of employee privacy in mind. Unless there is a safety, security or similar need, drug testing should be conducted on a "reasonable suspicion" basis. Drug tests can, thus, be used to enforce legitimate work performance standards and work rules.

A privacy issue that often arises concerns whether specimen donation must be observed to insure it is not adulterated. Observation may not be necessary. There are some methods of avoiding adulteration of a urine specimen without having to observe the urine donation.

1. Use a secure rest room for the specimen donation.
2. Put a coloring agent in the toilet water.
3. Disconnect the hot water faucet.
4. The donor should remove outer clothes and personal possessions not necessary.
5. Measure the specimen's temperature, PH, and specific gravity.
6. Follow proper chain of custody procedures.

Due Process

The U.S. Constitution requires the government to provide a person with "due process" before depriving him/her of "life, liberty, or property." Due process means that the government must provide a fair decision-making process before taking measures that affect these rights. While enforcement of this constitutional right is meant to protect against governmental interference, the concept of "due process" is so firmly rooted in our country by custom and contract that even private employers should strive to use fair procedures at all times in dealing with employees.

When employees claim that drug testing violates due process, they usually argue that the test are inaccurate, not related to work performance, or that the employees were not given a chance to contest the test results or ensuing discipline.

When looking at accuracy arguments, it is important to note that courts have consistently upheld the accuracy of drug tests that are properly performed, especially when they are confirmed.

On the issue of work performance, employees may argue that drug tests show only that an employee has ingested a substance at some time and do not show current impairment, therefore, the test cannot be used as proof of impaired work performance. These employees argue that it would be unfair to discipline someone unless she/he is impaired on the job. This argument, however, breaks down if one uses the reasonable suspicion standard, or a job-relevant work rule that forbids employees from using drugs. If an employee exhibits poor work performance or appears to be under the influence of alcohol or other drugs, the test can be used as further evidence that work is affected. Most testing programs are based on such work performance standards.

The first step in addressing due process is to ensure that a testing policy should include advance notice to employees of the consequences of a positive test result. This can best be achieved by developing a company policy which is given widespread publicity within the company through printed notices and training. The company drug testing policy must be clearly written and consistently enforced.

If an employee has a confirmed positive test result, she/he should be allowed to discuss this with his/her superiors or, if appropriate, have a hearing before any possible disciplinary action is taken. Employers should examine the employee's explanation or evidence to determine if it is legitimate.

Equal Protection

In some instances, public employers have singled out one group of employees for testing. These employees can raise the issue of "equal protection"; i.e., that it is unfair to be singled out. Such procedures on the part of an employer are acceptable providing there is a good reason, and providing there is no focus on legally protected classes of people, such as women, minorities, or handicapped persons. To avoid problems, both public and private employers should base the selection of certain groups of employees on business needs, or specific evidence of work-related problems among a designated group of employees.

Self Incrimination

The Fifth Amendment to the U.S. Constitution prohibits the government from forcing a person to provide testimony which will tend to incriminate him/her. In a notable case, the court held that blood tests are not protected under the Fifth Amendment because they are not "testimony." Testimony requires communication via speech, writing or other means. This same principle applies to breath and urine tests in that providing a specimen is not generally regarded as self incrimination.

Pre-employment

Pre-employment screening tests are generally acceptable. However, all pre-employment testing should be done in a consistent, nondiscriminatory manner; i.e., given to all who apply or given to justified selected job categories.

If the test is positive, the employer should notify the applicant and given him/her a chance to contest the results.

The employer should have a written policy on pre-employment testing, and it should explicitly include procedures for confidentiality. If an employee is rejected for a positive test result, the result should be kept confidential.

Can one legally reject a drug user from employment? Isn't this discrimination under laws protecting the handicapped? An employer can reasonably require that potential employees not be drug users, as long as this policy has a legitimate business purpose and is enforced against all similarly situated applicants.

Off-the-Job or Off-Duty Problems

How should one deal with employees who use drugs on their own time, test positive, but are not intoxicated or "under the influence" at the time of the test? For example, depending on the level of use, the presence of marijuana can be detected in the bodv for days or weeks. Even in such cases, the nature of the job may allow some action against the employee, if there are sound business reasons why particular employees should never use drugs. For example, the U.S. military, which performs extensive testing of its personnel, has a compelling national security reason prohibiting any drug use at any time by personnel.

In some private companies where there are safety or security concerns, it might be reasonable to require employees to never use any illegal drug because of the potential threat of accidents, blackmail, or corruption. In the case of public employees, however, you may need to have reasonable suspicion to ask the employee to take the test, unless there was prior agreement or some compelling reason that such tests were necessary.

An employer may have a right to take action for off-job or off-duty behavior if the behavior would demonstrably damage the company's reputation, affect the employee's attendance at work or subsequent job performance, or lead to the refusal or reluctance or inability of fellow employees to work with the employee.

Confirmation of Tests

Confirmation of test results is recommended. This avoids the time-consuming and expensive process of having to prove that the initial screening test was accurate. A policy of confirming tests leads to a level of fairness and certainty that reinforces decisions in discipline or termination.

It is recommended that initial positive results be confirmed by an alternative scientific method of equal or greater sensitivity. This ensures that the result is correct and can also detect any procedural errors.

Sometimes, an employee requests that the sample be sent to another laboratory for retesting. Since laboratories may differ in their procedures, it is important that the second laboratory uses a method with equal or greater sensitivity. Otherwise, the second laboratory may report a negative result, which will destroy the value of the initial test.

Random Tests

Due to the nature of a business or a particular job group, an employer may think it necessary to test employees on a random basis and not wait for individual suspicion to develop. Such random testing is subject to careful scrutiny by courts and arbitrators. In some cases, random testing for public employees has been allowed. Public and private employers would be well advised to justify the need for such random tests on the basis of specific workplace circumstances rather than a general concern about societal drug use.

If a public sector employee's job directly involves public safety, a random drug testing requirement may be upheld. In these cases, the benefit of doubt may go to the concern for safety, because lives should not depend on advance subjective detection of the often subtle effects of alcohol and other drugs.

Random testing should not be used as a means for selecting employees arbitrarily for testing. The only fair method of selection for random testing is when each employee has an equal chance of being selected for testing. Use of some neutral selection method will assure that some degree of statistical randomness is achieved.

The purposes of random testing are early detection and deterrence. Employees who know they will be tested at random are expected to be more likely to avoid behavior which will compromise their jobs. Nevertheless, this selection method engenders more employee resistance or opposition than the other test methods. Thus, employers should not resort to random testing until other methods have been explored or exhausted.

Intoxication and Impairment

Testing has been attacked because it may only prove that an employee at some time ingested drugs. Impairment, intoxication, or time of last use cannot usually be determined from a drug test. This determination may not be necessary. If a testing program is based on reasonable suspicion it means there is other evidence of impairment. The test merely provides scientific proof to backup the other evidence. In addition, testing can determine a pattern of drug use. If a person tests positive and is referred to counseling, additional tests will allow a better understanding of past and current use patterns. For example, in the case of marijuana, a positive test indicates that the person used marijuana in the past--which could be hours, days, or weeks depending on the specific use pattern and the cut-off level or sensitivity of the test. An infrequent user should be completely negative in a few days. Repeated positive analyses over a period of more than two weeks indicate either continuing use _or_ previous heavy chronic use. In addition, on a pre-employment test, impairment is not an issue.

How can a testing program be established that is protective of employee rights? Programs should be developed following a process similar to the one described below.

The Process of Establishing a Drug Testing Program

1. Document the need for testing

Why have a testing program? Is it necessary to enforce work performance standards, or for employee and/or public safety, security, or public trust? Do you have illegal drug sales on company premises? Consider also pre-employment tests and employee assistance program treatment and monitoring.

2. Steps in developing a testing policy

- Involve representatives from the sections of the organization likely to be involved in the program. Include labor, affirmative action, personnel, EAP, legal, security, medical, occupational health and safety, risk management, etc.
- Develop a policy which includes:
  - a. statement of need for the program
  - b. work performance standards
  - c. rules regarding alcohol and drug use on and off duty and company premises
  - d. confidentiality of test results
  - e. method of testing - pre-employment, random, reasonable suspicion
  - f. consequences of refusal to take a test

g. consequences of positive tests as they relate to rehabilitation, discipline, discharge, job assignment or other actions

h. opportunities for rehabilitation

i. rights of employees to due process and to be free from discrimination

j. EAP and/or treatment monitoring procedures

k. company responsibility to be fair and provide dignified testing

l. procedures for confirmation of positive test results.

Implementation of the Policy

- The cost of the program must be considered, including insurance and treatment costs.
- Develop procedures to include test administration, specimen collection and storage, chain of custody, and confidentiality. Establishment of chain of custody procedures is very important. Chain of custody is the term applied to the safeguarding of a test specimen to ensure that the specimen collected is the same one that is tested. The chain of custody is important for your program's integrity and in case the test result becomes part of a legal dispute.
- Testing procedures must be implemented that do not humiliate or harass employees.
- Consent to test must not be obtained by fraud, misrepresentation, or threats.
- Scientific and test manufacturer's procedures must be followed.
- All testing equipment should function properly and be subjected to documented maintenance and examination.
- Tests must be administered and specimens stored in accordance with state law.
- Change any labor-management agreements to comply with the policy if necessary.
- Inform all employees of the policy in writing and train employees and supervisors on the policy.

- If you choose to use on-site testing equipment, get proper training for your staff on the equipment and procedures.
- If you choose an outside laboratory, choose a well qualified laboratory that adheres to good quality control and state and federal law.
- Create a committee of relevant company representatives to oversee the program on a continuing basis.
- Have your program evaluated every few years by an outside consultant.

The New Jersey "Pre-Employment and Employment Drug Testing Standards Act"

New Jersey currently has a bill before its legislature that incorporates adequate protections for employees. It provides uniform standards for public and private employee drug testing and limits random testing to safety and security needs or other compelling interests. It requires employers to have written policy statements 30 days prior to implementing a program, and provides employees with the right to get tests confirmed and to contest the test results. Rehabilitation is called for and there are strict confidentiality protection. The bill also authorizes an aggrieved employee to file a civil suit in appropriate circumstances for lost wages, benefits, employment rights,as well as costs and attorney's fees.

Finally, the bill creates an Advisory Committee on Employee Drug Testing, which would solicit information and make recommendations regarding guidelines and regulations. The Advisory Committee will have 12 members including government health and labor officials, organized labor, a physician, and a representative from the American Civil Liberties Union.

In closing, please know that it is gratifying to see that you have taken on this important issue. We are well on our way to resolving it successfully. Drug testing has its place, as long as individual rights are protected and the public health and safety benefit.

The **Chairman**. Thank you.

Mr. Griswold, welcome.

Mr. **Griswold**. I think Mr. Adler is next on the list.

The **Chairman**. As usual, you are right.

Mr. Adler?

STATEMENT OF ALLAN ROBERT ADLER

Mr. **Adler**. Thank you, Mr. Chairman. I am here on behalf of the American Civil Liberties Union and we hope, through these hearings, to educate the Congress so that it does not commit the same kind of mistake in ignoring the rights of individuals that the executive branch has done with the issuance of President Reagan's drug testing Executive Order.

Let me just enter into the issue by changing the question to your hypothetical. Suppose that your exemplary agent with the outstanding record and years of performance, when asked to be tested, simply said, "I insist that my government, whether it is acting as a government authority or as my employer, deal with me on the basis of my conduct, my work performance, and my behavior. I don't think I have to be tested to prove that I am not engaged in wrongful conduct when there is absolutely no reason to believe otherwise."

In that case, under the President's Executive Order, and for employees in the transportation industry under S. 1041, an individual who otherwise is not suspected of wrongful conduct would lose his job, and suffer the possibility of becoming unemployable under the suspicion of hiding drug abuse or simply being a person who is not willing to support his government's or employer's campaign against drug abuse. Thereafter, in any future employment application, when he is asked whether he ever failed a drug test or refused to take a drug test, he will have to explain why and he will have to bear the suspicion that will follow from that admission. Yet, all he has done is to ask for the simple fairness of being judged on his own actions, job performance, or conduct, and to be presumed innocent of wrongdoing unless there is a reason to believe otherwise.

Despite the euphemistic title of the Senate bill, which is the Transportation Employee Safety and Rehabilitation Act of 1987, the millions of transportation employees, like millions of federal civilian employees, who are subject to mandatory drug testing under the President's Executive Order, will be the victims of the program, not the beneficiaries. The program could cost these individuals not only their privacy, not only their individual dignity, but their reputations and their jobs as well, and the worst part about it is that the programs are being put into place without any evidence whatsoever that the specific targeted workforces have an actual documented drug problem that can be shown to be affecting particular safety concerns.

Although we hear the Administration and the sponsors of this legislation talk about health and safety as their rationale for random drug testing programs, and we hear them characterize drug testing with euphemistic terms like "diagnostic tool" or "helping hand" to deal with the denial syndrome of drug use, what we are dealing with, and what the courts have recognized we are dealing with, is an investigative tool, seeking evidence of criminal conduct.

Now, it is true that the end result of being detected as having engaged in such conduct is not the traditional criminal justice process. Individuals will not be indicted. They will not be prosecuted. But it is quite clear that they will be punished because they have been identified as having engaged in conduct that is illegal.

If that were not true, then there would be absolutely no reason for distinguishing drug abuse from any other substance abuse, particularly the abuse of alcohol that causes all of the same safety and health-related problems as marijuana and cocaine and has been documented as doing so much more extensively and for a longer period of time by the National Institute on Drug Abuse.

It is a fact that the President's Organized Crime Commission originally recommended mandatory drug testing in the workplace to deal with what it considered the "demand" side of the problem of enforcing laws against illegal possession of, or trafficking in drugs. Even though prosecution does not result, I think the Congress would be terribly mistaken if it ignored the fact that the objective in drug testing is ultimately to identify people who are engaging in the illegal conduct of using controlled substances. Put whatever other face you want on it, whatever other label, that is what is being done. I think it is as repugnant under our constitutional system as it would be to have law enforcement officers stop individuals on the street and ask them to empty their pockets, or to enter the homes of individuals, without any reason to suspect them of wrongdoing, in order to find evidence of criminal activity. What is being done here is a violation of the fourth amendment protection that individuals have to be secure in their persons, as well as in their homes and affects, from unreasonable searches and seizures.

To be sure, you are going to hear that some courts have had different views on this issue. We believe that such court opinions, specifically the Court of Appeals opinions that have been cited by the Justice Department, are seriously flawed for two primary reasons. One is that they have all but read the "probable cause" language out of the fourth amendment without any explanation whatsoever of why the goal of dealing with health and safety concerns and even, in fact, the demand side efforts against illegal drug trafficking would not be served just as well by dealing only with individuals who are reasonably suspected of engaging in illegal drug abuse. Those court decisions should not guide Congress.

The CHAIRMAN. Let me ask this: Forget for a moment, which neither of us are able to really do, the fourth amendment question. Are you suggesting that the demand side would be impacted as much? Do you have any doubt that this will affect the demand side?

Mr. ADLER. No, I believe it will affect the demand side, although it will not eradicate the use of illegal drugs, any more than Prohibition changed the consumption habits in the United States with respect to alcohol, and it certainly is not going to have an impact on reducing the profit motive with respect to organized crime trafficking in drugs. They are going to continue. Even substantial demand-side impact could not justify this technique.

If you ignore the issue of the illegality of the conduct here, then you ignore what is really driving the drug testing program, because if health and safety concerns were truly at issue, then the advocates of drug testing would have to deal directly with the fact that drug testing does not provide any guarantees of health or safety since it provides no evidence with respect to impairment on the job.

Now, the OPM has said in their annual report—and, by the way, I can provide you, Mr. Chairman, with a copy of the report OPM has just issued pursuant to the omnibus drug law that was enacted last fall—how people have entered their program both for drug abuse and alcohol abuse, and also indicated the beginning of programs throughout the agencies to train managers and supervisors in recognizing the behavioral and physical symptoms of drug abuse. To be sure, they may not be as visible as the most obvious signs of alcohol abuse and you will not catch every individual who is a drug abuser.

The CHAIRMAN. You would be just as upset about that, would you not?

Mr. ADLER. No, we would not.

The CHAIRMAN. I have got 1 minute to vote. Let me vote and come right back.

[Short recess.]

The CHAIRMAN. Please continue, Mr. Adler.

Mr. ADLER. Senator, I will continue that point in the interest of trying to wrap up quickly, just to say that the ACLU believes that reasonable, individualized suspicion is a prerequisite to any mandatory testing program, and that even with a reasonable suspicion standard, we believe any use of test results which would lead to adverse employee decisions against the tested individual have to be closely circumscribed. The test is not proof the individual is presently intoxicated or impaired. Positive test results will not provide evidence that an individual has violated any workplace rule against using drugs on the job or coming to work under the influence of drugs.

The CHAIRMAN. But it is clear that it will have established, if it is true, that they violated the law, right?

Mr. ADLER. But the question is whether that is the business of an employer, to determine whether or not an individual in off-duty time off-company premises is engaging in illegal conduct. We are not talking about the actions that an employer may take based upon learning that an individual has engaged in illegal conduct off-duty. We are talking about the means by which the employer may inquire as to whether or not the individual has done so.

All we are saying, ultimately, is that an individual is entitled to be presumed innocent of wrongful conduct. The police are constitutionally prohibited from conducting a search without some suspicion of criminal activity, and the employer similarly has no business to subject an employee to a test to find out whether or not he is engaging in wrongful conduct.

The other point is that, even if you have the kind of reasonable suspicion to justify testing that you are talking about, based on behavior and job performance, why do you need such a test? Surely an employer who believes that an employee's job performance is poor or that the individual has engaged in conduct which is improper in the workplace is, at that point, without any test, free to take an appropriate employer's action against an employee. We still operate largely in an employment at will system, where employers can act upon poor performance or improper behavior for any reason, and there is no reason whatsoever to subject the individual to the indignity and the potential administrative nightmare and horror of drug testing. If there is a problem regarding behavior and conduct, it does not have to be identified as a suspicion of drug abuse. The employer is free to deal with employees who do not meet the standards of performance and conduct in the workplace for any reason.

We think this legislation is wrong-headed. We hope the Senate will not adopt S. 1041, the bill that came out of the Commerce Committee. If it does, however, pass some form of testing legislation, it should prohibit random drug testing, and permit only testing based upon reasonable suspicion, while limiting the consequences of a positive test result in light of limited probative or predictive evidentiary value, and insuring that, rather than having the safeguards for confidentiality, chain of custody, privacy and all the rest, decided through rulemaking under the discretion of heads of agencies, Congress will take the responsibility in the statute itself for providing the necessary safeguards.

Thank you.

[Submissions of Mr. Adler follow:]

STATEMENT OF

ALLAN ROBERT ADLER
LEGISLATIVE COUNSEL
AMERICAN CIVIL LIBERTIES UNION

CONCERNING THE PROPOSED "TRANSPORTATION EMPLOYEE SAFETY AND REHABILITATION ACT OF 1987"

S. 1041

Mr. Chairman and Members of the Committee:

On behalf of the American Civil Liberties Union, I would like to thank you for inviting me here today to discuss S. 1041, the proposed "Transportation Employee Safety and Rehabilitation Act of 1987," which was approved by the Senate Committee on Commerce, Science and Transportation on March 10 of this year.

Let me say at the outset that the ACLU believes this hearing serves a critical need for a thorough and balanced public examination of the constitutional issues raised by the Commerce Committee bill. In addition, we hope that the Committee on Labor and Human Resources will have a similar opportunity for a hearing to carefully consider key aspects of the bill that are clearly within its jurisdiction before the bill goes to the Senate floor.

During the latter half of 1986, when politics and the press combined to focus unprecedented national attention on the problem of drug abuse, Congress found itself burdened by an overwhelming obligation to quickly respond with comprehensive legislation. Unfortunately, the strident publicity linking the issue to the November elections created a distorted perspective and false urgency which led otherwise sensible legislators to support senseless and even dangerous proposals in their headlong rush to be counted among those who were resolute in addressing the problem. High on the list of such proposals were the calls for drug testing in transportation industries and a number of other areas of employment.

Recognizing that the controversies surrounding mandatory workplace drug testing could not be adequately examined in the legislative melee that quickly engulfed the omnibus drug bill, Congressional leaders wisely took the issue off the table as they lurched toward passage of the bill and adjournment. For most legislators, this was a sensible approach, especially in light of the many pending court challenges to workplace drug testing programs that include President Reagan's mandatory requirements for testing federal civilian employees under Executive Order 12564. For others, there was apparently some resentment that they had been denied an opportunity to take what they considered to be a decisive, "get tough" step against users of illegal drugs.

The tragic Amtrak-Conrail collision, which took 16 lives on January 4 of this year, brought forth new demands for statutory drug testing requirements when newspaper headlines blared that the Conrail brakeman and engineer had tested "positive" for marijuana based on blood and urine samples taken 8 1/2 hours after the crash. Two weeks later, Commerce Committee Chairman Sen. Ernest Hollings and the committee's ranking minority member, Sen. John Danforth, each introduced legislation to broadly impose mandatory random drug and alcohol testing requirements on rail and airline employees. Less than nine weeks after the accident, a single version of the two bills was expanded to impose testing on commercial motor vehicle operators and approved by the Commerce Committee by a 19 to 1 vote.

Once again, drug-related headlines have led some legislators to urge what they believe is the quickest and most direct route in dealing with those who use illegal drugs. But, once again, in their haste to respond to an immediate and highly-publicized episode raising public concern, they are choosing to trivialize or ignore the well-founded bases for the controversy surrounding drug testing, not only to the detriment of those who would be subject to such requirements but with little to show for the transportation safety interest they seek to advance.

Despite the title of the Commerce Committee bill, it is all too clear that transportation employees will be the victims, rather than the beneficiaries, of this dubious piece of legislation. The bill's random drug and alcohol testing requirements, to be implemented with broad rulemaking discretion by the Secretary of Transportation and the Administrator of the Federal Aviation Administration, could cost tens of thousands of employees in the air, rail and ground surface transportation industries their privacy, dignity, reputations, and jobs.

Contrasted with the potential costs to employees, the benefits in terms of improved prospects for transportation safety are far more elusive. Aside from general representations and a few anecdotal illustrations, neither the Reagan Administration nor the sponsors of the Commerce Committee bill have offered any real evidence indicating that whatever drug and alcohol abuse exists in the targeted categories of employees is sufficiently substantial and threatening to public safety to justify the bill's draconian dragnet approach toward identifying the abusers. Moreover, they have failed to show that alternative means of addressing any extant problem -- such as the Human Intervention Motivation Study (HIMS) program of the Air Line Pilots Association or the Operation Red Block program begun by the United Transportation Union and the Brotherhood of Locomotive Engineers -- have not worked well. Most importantly, they have ignored the inherent limitations of drug testing through urinalysis -- in terms of the probative value of test results for any evaluation of an individual's capability to perform -- despite the fact that these limitations significantly undercut any assumption about weeding out impaired employees through testing.

This last consideration can be more clearly understood by reference to the ongoing investigation of the Amtrak-Conrail collision. Although it was the "positive" drug tests of the Conrail brakeman and engineer that triggered the push for the Commerce Committee bill, the National Transportation Safety Board has not determined -- and, on the basis of the test results, cannot determine -- the cause of the tragic accident. Urine drug testing can provide no evidence regarding whether an individual was intoxicated or impaired by a drug, nor can it indicate how recently a drug was ingested.

In fact, such drug testing will most likely be detecting the use of controlled substances by employees that occurs when they are off-duty, off-premises and otherwise not accountable to their employers for their conduct. Such conduct may well be illegal, but it will not ordinarily be a legitimate matter for employer inquiry through testing unless it has a direct bearing on the employee's ability to satisfactorily perform the responsibilities of his or her job. A "positive" drug test provides no evidence of such a nexus and has no probative or predictive value regarding impairment.

Thus, for all of its intrusiveness, random drug testing will be unhelpful in the detection of individuals whose impaired condition while on the job threatens transportation safety. Without any basis for inferring that an individual's off-duty substance abuse will necessarily or even likely result in on-duty impairment, this particular means of addressing on-the-job drug abuse is not as effective as a trained supervisor's observation and evaluation of an employee's workplace behavior and job performance and therefore cannot be justified.

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For many of the same reasons that the Commerce Committee bill is unfair and unnecessary, the ACLU believes it is also unconstitutional.

Virtually every federal and state court that has considered the issue has assumed or expressly concluded that a government-compelled urine drug test, like the compulsory blood test at issue in Schmerber v. California, 384 U.S. 757 (1966), constitutes a search and seizure within the meaning of the Fourth Amendment. See, e.g., Shoemaker v. Handel, 795 F.2d 1136, 1142 (3rd Cir.), cert. denied, _ U.S. _, 107 S.Ct. 577 (1986); Division 241 Amalg'd Transit Union (AFL-CIO) v. Suscy, 538 F.2d 1264, 1267 (7th Cir., cert. denied, 429 U.S. 1029 (1976); National Treasury Employees Union v. Von Raab, No. 86-3833 (5th Cir. April 22, 1987), affirming on this issue, 649 F.Supp. 380,386

(E.D.La. 1986); McDonell v. Hunter, 809 F.2d 1302, 1307 (8th Cir. 1987); Mack v. United States, No. 86-6097 (2nd Cir., March 30, 1987); National Association of Air Traffic Specialists v. Dole, No. A87-073 (D.Alaska, March 27, 1987)(slip op. at 22); Penny v. Kennedy, 648 F.Supp. 815,816 (E.D Tenn. 1986); Lovvorn v. City of Chattanooga, 648 F.Supp. 875,879 (E.D. Tenn. 1986); Capua v. City of Plainfield, 643 F.Supp 1507, 1513 (D.N.J. 1986); Jones v. McKenzie, 628 F.Supp. 1500,1508 (D.D.C. 1986); Allen v. City of Marietta, 601 F.Supp. 482, 488 (N.D. Ga. 1985); Storms v. Coughlin, 600 F.Supp. 1214, 1217 (S.D.N.Y. 1984); Patchouge-Medford Congress of Teachers v. Bd. of Education, 505 N.Y.S.2d 888, 890 (A.D.2 Dept. 1986); Caruso v. Ward 506 N.Y.S.2d 789, 792 (Sup. 1986); Turner v. Fraternal Order of Police, 500 A.2d 1005, 1008 (D.C. App. 1985); City of Palm Bay v. Bauman, 475 So.2d 1322, 1324 (Fla. App. 5 Dist. 1985); Fraternal Order of Police, Newark Lodge No 12 v. City of Newark, No. L-095001-85E (Superior Ct. of N.J., Essex Co., March 20, 1986); Odenheim v. Carlstradt-East Rutherford Regional School Dist., No. C-4305-85E (Superior Ct. of N.J., Chancery Div., Bergen Co., December 9, 1985).

In order to determine whether such testing constitutes an unreasonable search and seizure within the meaning of the Fourth Amendment, such courts have looked to the Supreme Court for the proper analysis to be applied:

> The test for reasonableness under the Fourth Amendment is not capable of precise definition or mechanical application. In each case, it requires a balancing of the need for the particular search against the invasion of personal rights that the search entails. Courts must consider the scope off the particular intrusion, the manner in which it is conducted, the justification for initiating it, and the place in which it is conducted."
>
> Bell v. Wolfish, 441 U.S. 520, 559 (1979).

In the majority of cases, courts ruling upon the validity of urine drug tests for public employees have required as a prerequisite some articulable basis for suspecting that the employee was using illegal drugs, and usually this standard has been framed as "reasonable suspicion." See, e.g., Penny v. Kennedy (police officers; Lovvorn v. City of Chattanooga (firefighters); Capua v. City of Plainfield (firefighters);

Turner (police officers); Patchogue-Medford (teachers); Jones v. McKenzie (school bus attendants); City of Palm Bay (police officers and firefighters); Caruso (police officers in special organized crime control bureau).

Even in some cases where the court appeared to place great emphasis on the nature of the employee's work as part of a balancing process, rather than to depend upon a "suspicion" standard, the particular regulation or factual situation before the court anchored the court's ruling to a clear "reasonable suspicion" content. See, e.g., Suscy, 538 F.2d at 1267 (while stating that bus and train operators had no reasonable expectation of privacy regarding blood and urine tests in light of Chicago's "paramount interest in protecting the public," the court emphasized that the conditions of the tests at issue required tests only for "operating employees directly involved 'in any serious accident' or 'suspected of being under the influence' of intoxicating liquor or narcotics" and not unless two supervisory employees concur); Allen, 601 F.Supp. at 491 (while apparently stating a broad "employment context" search exception that equated the government's rights with those of any private employer, the court repeatedly emphasized its focus upon the tests "administered in this case" which were required after an undercover agent observed the utility's employees smoking marijuana while working around high voltage wires); Mack v. United States, slip op. at 6 (although the lower court minimized the intrusiveness of urinalysis and the appellate court based its affirmance on the subject's consent to be tested, the facts show that the test was based upon suspicion that the FBI agent in question had been using cocaine).

The standard of "reasonable suspicion," predicated upon specific facts and reasonable inferences drawn from those facts in light of experience, "requires individualized suspicion, specifically directed to the person who is targeted for the search." Capua, 643 F.Supp. at 1517, citing Ybarra v. Illinois, 444 U.S. 85, 89-91 (1979). The courts that have adopted it as a prerequisite to mandatory urine drug testing considered it an important ingredient toward "reasonableness" in balancing the government's interest, or the need for the search, against the intrusiveness of the search with regard to the individual's reasonable expectation of privacy.

Most courts have concluded that the intrusion involved with urinalysis is substantial, both as a function of the third-party observation of the specimen collection which is required to ensure that it has not been tampered with, and as a function of the personal medical information beyond drug use that is revealed in the course of analysis. See, e.g., Capua, 643 F.Supp. at 1511-1514; NTEU, 649 F.Supp. at 387. Some courts, however, found urine drug testing to be not so intrusive, especially when compared with strip searches, McDonell, 809 F.2nd at 1308, or fingerprinting, Mack, slip. op. at 6. To some extent, it necessarily entails "a rather subjective evaluation." Lovvorn, 647 F.Supp. at 880 ("The Court suspects that the degree of intrusion engendered by a urine test will vary greatly depending upon the individual being tested. Some persons may not mind at all, while others... may take great offense.:) Confidentiality procedures, strictly protecting the personal information disclosed, have been considered as a mitigating factor in the intrusion analysis, Shoemaker, 795 F.2nd at 1140, as are collection procedures which do not require third-party observation. Id.

Balanced against the intrusiveness of the tests are the various state interests which are asserted to justify the search. Although most courts are willing to accept the validity of general representations regarding the need to maintain public confidence in the integrity or fitness categories of public employees or individuals in certain types of employment, court after court seems to note with some frustration that the proponents of drug testing fail to provide any evidence to indicate that a substantial drug problem exists within the targeted workforce. See, e.g., Penny, 648 F.Supp. at 816 (evidence showing that 2 of 360 police officers had tested "positive" in 1985, combined with chief's statement that 90% of the department had no problem with drugs, outweighed argument in favor of 1986 testing without individualized suspicion); *Lovvorn*, 648 F.Supp. at 882 (department could not support finding of increased incidence of drug use that posed threat to readiness and efficiency without "objective facts concerning deficient job performance or physical or mental deficiencies on the part of firefighters, either in general or with respect to specific personnel"); *NTEU*, 649 F.Supp. at 390 (Customs Service could not justify testing without reasonable suspicion based upon record with "conspicuous absence of any statistics... showing any drug problem whatsoever among federal workers"); *Capua*, 643 F.Supp. at 1516 (since none of the 103 firefighters tested had received notice of below standard job performance, none were under investigation for drug use on the job, there was no increased incidence of fire-related accidents or complaints of inadequate fire protection from the community, City had no general job-related basis for instituting mass testing program); *Caruso*, 505 N.Y.S.2d at 795 (evidence that 22 out of a force of 26,000 police officers had tested "positive" for drugs over a two-year period could not support a finding that drug use was more than "a very occasional problem at best").

In the absence of empirical data supporting an asserted need for testing a particular workforce, the courts have refused to allow the proponents of the testing to rely upon extrapolations and assumptions regarding proportionate representation based upon widespread, large scale drug use in all segments of the population, *Capua*, *supra*, or in other identifiable groups, *Caruso*, *supra* (statistics of drug abuse among adolescents, department applicants, and the population at large were held irrelevant to particularized need). Nor can test proponents rely on an "efficiency" argument to avoid the requirem reasonable, individualized suspicion, since "the results achi cannot justify the means utilized and the constitutionality search cannot rest on its fruits." *Capua*, *supra*.

Three recent federal appellate court decisions are now cited as upholding the proposition that the Fourth Amendment does not require any standard of individualized suspicion as a constitutional prerequisite for mandatory urine drug testing. However, the decision in each case rests upon the same flawed application of established Fourth Amendment doctrines which, in crucial part, overlooks the nature of the search involved in urine drug testing as well as the testing proponents' failure to support the asserted state interest with specific evidence of a substantial drug problem within the targeted workforce.

In Shoemaker v. Handel, the 3rd Circuit upheld a regulation of the New Jersey Racing Commission requiring warrantless random drug testing of jockeys, in part on the ground that such testing qualified as an "administrative inspection" within a "pervasively regulated industry," where jockeys and other key participants could have no reasonable expectation of privacy requiring individualized suspicion for a search. 795 F.2d at 1142.

This rationale was rather casually adopted by the Eighth Circuit in McDonell v. Hunter, 809 F.2d 1302 (8th Cir. 1987), where the majority, citing Shoemaker, upheld testing of prison employees performed "uniformly or by systematic random selection" on the grounds that "the state's interest in safeguarding the security of its correctional institutions is at least as strong as its interest in safeguarding the integrity of, and the public confidence in, the horse racing industry." Id. at 1308.

Most recently, in National Treasury Employees Union v. Von Raab, No. 86-3833 (5th Cir., April 22, 1987), the majority reversed the lower court and upheld the constitutionality of a Customs Service requirement for testing all current employees seeking transfer to certain sensitive jobs. The majority opinion emphasized the "administrative purpose" of the program and concluded that it was analogous to "inspections of the premises" of "highly regulated industries" which the Supreme Court has upheld in the absence of a warrant or any degree of individualized suspicion.

But the Supreme Court, in cautiously formulating its exception to the warrant and probable cause requirements of the Fourth Amendment for statutorily-prescribed "administrative inspections" of "pervasively-regulated businesses," has pointedly emphasized that such cases "represent responses to relatively unique circumstances." Marshall v. Barlow's Inc., 436 U.S. 307, 313 (1978). Moreover, in applying the exception, the Court has thus far recognized only three instances in which nonconsensual, warrantless search could be rationalized as an "administrative inspection" and these cases all involved inspections of commercial properties, not searches of individuals. See Donovan v. Dewey, 452 U.S. 594 (1981) (mines & quarries); U.S. v. Biswell, 406 U.S. 311 (1972) (gun selling); Colonnade Catering Corp. v. United States, 387 U.S. 72 (1970) (liquor trade). Indeed, even with respect to such properties, the Court has more often concluded that particular statutory or administrative schemes limiting the discretion of officials performing the search were not adequate substitutes for warrant and probable cause requirements in protecting legitimate privacy interests. See, e.g., Marshall v. Barlow's Inc., supra, (OSHA inspections); Michigan v. Tyler, 436 U.S. 499 (1978) (investigation of building fire); See v. City of Seattle, 387 U.S. 541 (1967) (inspections to enforce fire code); Camara v. Municipal Court, 387 U.S. 523 (1967) (building inspections).

Application of this Fourth Amendment exception to searches of individuals by means of urine drug testing simply ignores the greater constitutional significance traditionally accorded to an individual's privacy interests in connection with a search of his or her person as compared with a search of commercial premises. It is not an invitation that Congress should accept.

Equally troubling in each of these cases was the respective court's willingness to forego a requirement of individualized suspicion as a threshhold justification for testing in the absence of any evidence demonstrating that a substantial drug abuse problem, adversely affecting legitimate workplace interests, actually exists within the targeted workforce.

In Shoemaker, for example, the court concluded that it is "the public's perception," rather than any "known suspicion" of drug abuse by jockeys, "that triggers the state's strong interest in conducting warrantless testing." 795 F.2d at 1142. This departure from longstanding Fourth Amendment doctrine requiring at least a "reasonable suspicion" of wrongdoing to justify a search in a noncriminal context places jockeys -- and other potential targets of mass drug testing -- on the same footing as prisoners who, because of their diminished privacy rights and the unique security needs of correctional facilities, had been the only individuals previously found to lack Fourth Amendment protection against random drug testing requirements imposed by State officials. See Storm v. Coughlin, supra. The trial court findings of fact concluded that "[n]o evidence has been introduced linking a jockey's drug-related impairment with an accident during a race [and that the] vast majority of racing accidents are caused by injuries to the horses." 619 F.Supp. at 1092.

It is easy to see the danger in permitting the Government to justify such an invasion of personal privacy on the amorphous grounds of the "public's perception." It constitutes an unworkable and unreviewable basis for the raw assertion of government power which, if relied upon as precedent, promises a potential for confusion and abuse.

In McDonell, the Eighth Circuit took an equally disturbing path when it ignored factual findings by the district court in order to modify the latter's opinion to hold that urinalysis testing of prison employees need not be conducted on a reasonable suspicion basis but rather "may be performed uniformly or by systematic random selection of those employees who have regular contact with the prisoners on a day-to-day basis in medium or maximum security prisons." 809 F.2d at 1308.

In a vigorous opinion, concurring in part and dissenting in part, Chief Judge Lay notes that the appellate majority was "plainly aware" that the district court had specifically found that conducting urinalysis with the object of "posib[ly]... discovering who might be using drugs and therefore [who] might be more likely than others to smuggle drugs to prisoners is far too attenuated to make seizures of body fluids constitutionally reasonable." 809 F.2d at 1311-1312. Yet it modified the lower court's opinion on the grounds that "it is ... logical to assume that employees who use the drugs, and who come into regular contact with the prisoners, are more likely to supply the drugs to the inmates." Id. at 1311.

By cavalierly ignoring the factual findings of the trial court, the majority in McDonell could not distinguish between the privacy rights of the prison's employees and those of the prison's inmates.

In his partial dissent, however, Chief Judge Lay put his finger on the problem with both the Shoemaker and McDonell rulings:

> "[T]he fourth amendment's warrant requirement was established by the founders because of the colonists' bitter experiences with random searches conducted by authorities who believed that the interests of the monarch were paramount to the rights of individual citizens. [cities omitted] When individual citizens who work for the state are told that to remain employed they must subject themselves to urinalysis... because of the state's asserted security interests, without a demonstration of substantial facts underlying those assertions of need, that precious freedom to be secure from unwarranted searches and seizures is similarly implicated.
>
> ...
>
> Neither the environment of the prison workplace nor a well-meant desire to stem the use of illicit drugs should be used to tip the balance of Fourth Amendment interests in favor of the state without factual findings on the record to prove the institution's real need."
>
> Id. at 1310-1311

Unfortunately, the Fifth Circuit majority in National Treasury Employees Union v. Von Raab, supra, felt no more need than the majority panels in Shoemaker and McDonell to require the testing proponents to prove the existence of drug problem sufficiently serious to justify random testing. In fact, the majority specifically notes:

> "The Customs Service did not attempt to justify drug screening on the ground that it suspected a significant level of drug use among its employees. Indeed, the Commissioner has described the Service as 'largely drug free,' and, in five months of testing, none of the tests of current employees seeking a job change was positive. Even among applicants not already employed, only one person's test was positive." Slip op. at 4.

In his dissent, Circuit Judge Hill notes that the majority "offers no explanation why this case presents a situation where no warrant, no probable cause, nor even any level of suspicion is required, contrary to the language of the fourth amendment." Id. at dissent, p.1 -2 and note 1 (lengthy discussion of recent Supreme Court cases and issue of rushing to "balance" without first addressing applicability of warrant and probable cause requirements).

* * *

The Commerce Committee bill suffers from a number of flaws based upon the analysis of the caselaw above.

First, and foremost, is the problem of random alcohol and drug testing. Neither the Administration nor the bill's sponsors have demonstrated the need for depriving individuals of the fundamental privacy off their persons without, at minimum, demonstrating a reasonable particularized basis for suspecting them, as individuals, of drug abuse which affects their job performance.

The failure of the bill's proponents to establish a factual record regarding the nature and extent of alcohol and drug abuse among transportation employees, and the precise relationship between the abuse that exists and specific safety-related problems, belies the validity of the "Congressional Finding" at Sec. 2(4). It also demonstrates the utter insufficiency of using the "responsible for safety-sensitive functions" designation as a substitute for some standard of probable cause to protect .

The ACLU believes that reasonable individualized suspicion is a prerequisite for any mandatory testing requirement. We recognize, however, that some courts have accepted, without discussion, the constitutionality of preemployment testing and periodic testing as part of a required physical examination, notwithstanding the lack of any individualized suspicion in either of those circumstances. See, e.g., Lovvorn, 647 F.Supp. at 881 n.7 and cases cited therein. Post-accident testing may be construed as having an individualized suspicion trigger if such testing is based on at least preliminary determination that the cause of the accident was not exclusively mechanical and there is some evidence that human error, due to negligent inattention, was the likely cause. This comes closer the the ACLU's view of legitimate "cause" standard.

Even with a reasonable suspicion standard, the ACLU believes that any use of the test results which could lead to an adverse employment decision against the tested individual must be closely circumscribed according to the limited probative evidentiary value of such results. For example, a "positive" test for marijuana cannot properly be considered evidence that the tested individual has violated any rule regarding working while under the influence of, or intoxicated by, a controlled substance. Nor could it demonstrate a violation of more broadly-worded prohibitions against "drug use in the workplace." It may, however, prove a violation of rules prohibiting employees from ever using controlled substances. However, the ACLU does not believe that such rules are within the legitimate scope of an employer's authority, unless the employer can demonstrate that off-duty, off-premise use of such substances directly affects the employee's ability to satisfactorily fulfill the responsibilities of his or her job.

For this reason, the ACLU does not believe that drug testing requirements -- given their intrusiveness and their potential for error -- are appropriately necessary to deal with workplace drug abuse problem. Surely an employer who observes an employee using drugs in the workplace or determines that an employee is working while under the influence of, or impaired by, drugs in the workplace does not need a urine test result to pursue an appropriate cause of action in response. Indeed, it would seem that in such circumstances a urine test requirement would add no additional validity to any action that the employer might take and could instead become an aggravating factor in the necessary communication that must follow.

Objective criteria comprising a reasonable individualized suspicion of drug abuse are currently being well publicized. Fo. example, the Department of Education's 1986 publication, School Without Drugs, contains a "Fact Sheet" regarding "Signs of Drug Use;" the September, 1986 issue of Drug Abuse Update contained an excerpt from a publication by Dr. Forrest Tennant, a well-known advisor to the National Football League, among others, regarding "How and When To Suspect Drug Use in An Athlete;" 800-Cocaine, a book by Dr. Mark Gold, the founder of the National Hotline for Cocaine Users and Victims, contains some details about the signs to look for concerning cocaine abuse on the job.

Managers and supervisors who are clinically trained to recognize the behavioral and performance, as well as the physical, symptoms of drug abuse will be much more effective and much less offensive in detecting drug abuse problems in the workplace. They may not be able to readily detect each and every individual with a drug problem, but neither will urine testing. By personal and professional interaction with employees in their charge, they will have a daily picture of the workforce and a greater continuing knowledge of the employees that will help them be aware of the subtle changes in behavior and performance that mark the drug abuser.

Another alternative to drug testing which is likely to be more effective and less problematic involves impairment testing. If Congress is concerned about transportation safety, it might wish to devote more attention to recent developments in computer-assisted neurophyusiological techniques and studies regarding the measurement of evaluation of neurocognitive impairment in the field (see attached papers). Impaired performance directly threatens transportation safety, but it cannot be detected or predicted through urine drug testing.

If Congress goes forward with some form of drug testing requirements under this bill, it is imperative that safeguards for the rights of subject individuals not be left to the rulemaking discretion of the Department of Transportation and the FAA. Confidentiality, chain of custody, privacy, and lab certification procedures and criteria should be considered and spelled out in detail by congress. In addition, a cause of action for wrongful adverse employment actions, based on violations of the provisions of the legislation, should be provided to individuals who undergo testing pursuant to requirements of the bill. Provisions in the Fair Labor Standards Act would be a useful starting point for such provisions.

THE UNIVERSITY OF TEXAS AT ARLINGTON
THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS
Joint Program in Biomedical Engineering

October 29, 1986

Mr. Allen Adler
C/O American Civil Liberties Union
132 W. 43rd Street
New York, New York 10036

Dear Mr. Adler:

Please find enclosed a copy of materials sent to Asst. Attorney General Willard following your recent joint interview on CBN news. I hope you find the material useful. I would like to extend my offer for consultation to ACLU as well.

I look forward to hearing from you.

Sincerely,

George V. Kondraske

George V. Kondraske, Ph.D.
Associate Professor of Electrical
and Biomedical Engineering

Enclosure

Biomedical Engineering, Box 19138, Arlington, Texas 76019-0138 (817) 273-2249
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THE UNIVERSITY OF TEXAS AT ARLINGTON
THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS
Joint Program in Biomedical Engineering

October 29, 1986

Mr. Richard Willard
Asst. Attorney General
Civil Division
U.S. Department of Justice
10th and Constitution, NW
Washington, D.C. 20530

Dear Attorney Willard:

On October 28, 1986 I saw you and Mr. Allen Adler (ACLU) interviewed on a CBN news broadcast regarding legal and other concerns associated with current drug screening methods and, specifically, the upcoming court case concerning the mandatory screening of members of the Boston police department. I direct a University-based research group with expertise in the area of human performance measurement. Materials are enclosed which summarize our efforts. Over the past year, I have followed the current drug testing issues with keen interest. Drawing from my experience in other arenas, I have formulated a potential solution to much of the current drug screening controversy. In light of your activities discussed during the above referenced interview, I thought you might be interested in knowing of these concepts yourself or perhaps in forwarding them to appropriate administration officials for followup.

While I would be pleased to make myself available to discuss details at your request, let me state the concept simply:

* Current issue: A focal point of current debate regards the employer's vs. the individual's rights. It is argued that current drug screening methods (urinalysis) invade the individual's right to privacy. The point is made that it is unreasonable for an employer to mandate acquisition of knowledge related to an individual's off duty activities. (From the interview, I know this is not your stance). As Mr. Adler indicated, the detection of "signs" to indicate probable cause would justify a followup with urinalysis tests (an approach now being applied by General Foods Corporation - see attached). I have heard it said, now many times, that it is the employer's right to be concerned with performance. Mr. Adler spoke of "impairment", determined by visual observation, as an indicator of potential drug use.

Biomedical Engineering, Box 19138, Arlington, Texas 76019-0138 (817) 273-2249
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- **Solution:** Funded primarily by the National Institute of Handicapped Research (DOE), our research group has pioneered the development of technology and scientific methods to measure individual elements of human performance which represent the resources drawn upon by humans to execute job tasks. Subsets of these measures (attention, short-term memory, reactions, steadiness, speed, and coordination) have been shown to be sensitive indicators to the effects of many drugs (alcohol, marijuana, barbiturates, and others) and represent an objective quantitative version of the signs of impairment described by Mr. Adler. The tests can be administered on-site in about 5-10 minutes. Inexpensive portable equipment could be easily manufactured for this purpose. The result would be screening based on measures directly related to job performance. The contrast to current methods is a switch from a focus on the cause to the effect. In addition to the obvious advantage related to the above legal issues, this approach also deals with intraindividual differences with respect to the sensitivity to a given level of a given drug (that is, level of impairment can be quite different for the same level of the same drug in different individuals).

hope you will find these ideas of possible help and consider them eriously. Since I expect these concepts should be of general nterest, I am also informing the ACLU via Mr. Adler. As I indicated, would be happy to consult with you to provide details if desired. I ook forward to hearing from you.

incerely,

George Kondraske

eorge V. Kondraske, Ph.D.
ssociate Professor of Electrical
nd Biomedical Engineering

nclosures

:c: President Ronald Reagan
Congressman Jim Wright
Congressman Steve Bartlett
Congressman Dick Armey
Congressman Martin Frost
Allen Adler ✓

A Computer-Based System for Automated Quantitation of Neurologic Function

GEORGE V. KONDRASKE, MEMBER, IEEE, ALFRED R. POTVIN, SENIOR MEMBER, IEEE,
WALLACE W. TOURTELLOTTE, AND KARL SYNDULKO

Abstract—After developing, evaluating, and utilizing several generations of instrumented and coded neurologic function tests, we have designed a prototype minicomputer-based system that integrates a broad battery of tests into a clinically attractive console. The tests can be administered by a trained technician. Scoring, data analysis, storage, and retrieval are automated, providing the clinician with results expeditiously. In addition to a detailed description of the computer-automated system, we critically review corresponding alternate methods and devices developed in other laboratories. We also describe system design concepts, instrumentation techniques, test specifications, and software implementation/application features in detail.

I. BACKGROUND

THE neurologist, in carrying out a clinical examination [1], applies principles of nervous system structure and function to localize a lesion and arrive at a diagnosis. While numerous laboratory procedures and tests have been developed and applied over the years, their aim is not to replace the clinical neurologic examination, but instead to confirm and complement information obtained by the neurologist.

However, limitations of neurologic examinations prevent the objective and accurate assessment required for neuropharmacologic clinical trials or serial evaluation of disease-related function changes. At first, coded examinations utilizing ordinal scales were developed. These structured examinations, like clinical examinations, are dependent on the skilled but subjective judgment of a physician. Individual functions such as strength are assessed and rated on an ordinal scale, e.g., 1 = normal, 2 = mild, 3 = moderate abnormality, 4 = severe abnormality, and 5 = paralysis. Although this examination is simple to perform and can be scored quickly, the scale is too restricted to categorize small but important changes in function over time or to determine a patient's proportion of normal function. In addition, idiosyncrasies of trained observers, along with the inherent subjectiveness of the tests and disagreement over the correspondence of scale numbers and degree of functional loss, limit critical comparison of results obtained from different sources.

In efforts to supplement coded examinations, investigators [2]-[7] developed more sensitive instrumented tests for functions such as strength, steadiness, reactions, speed, coordination, sensation, fatigue, gait, and station. While a variety of methods have been developed and documented (for review, refer to Potvin *et al.* [8]), routine clinical use has yet to come about. This is most likely due to problems with current methods (time-consuming, expensive, poorly documented and difficult-to-reproduce instrumentation, time-consuming manual data management and reduction, lack of standardization, limited evaluation and application); insufficient collaboration among neurologists, biomedical engineers, psychologists, statisticians, and medical technicians to consolidate development efforts; and lack of coordinated efforts to integrate individually instrumented tests into a system. Therefore, there are few commercial devices available for assessment of individual functions and none capable of broad neurologic function assessment.

To address this general problem, we have developed a broad battery of computer-based tests to assess human neurologic function quantitatively in an automated fashion that could eventually lead to standardization. Test sites and neurologic functions that are evaluated with the automated system are shown in Table I. Criteria for selection of tests include: 1) existence of established methods for quantifying a particular function or technical ability to develop methods; 2) feasibility of instrumenting and automating the test; 3) relative contribution of each test toward development of a broad battery of neurologic functions tests; and 4) clinical relevance or correlation with classic and coded methods used by clinicians. Although widely used electrophysiologic tests are excluded due to their commercial availability, they may be incorporated easily as an add-on to the computer-based system.

II. SYSTEMS CONCEPTS: DEVELOPMENT AND KEY FEATURES

We developed instrumentation and tests with features that are beneficial from the patient's, technician's, and clinician's viewpoints. For the patient's benefit, we included tests that are simple in concept, adaptable to a wide range of disabilities, short in duration, interesting, and in some cases enjoyable. Patient-equipment interfaces (transducers, stimulators) were made simple, comfortable, and safe so as to minimize patient anxiety.

Our system simplifies the technician's task of administering tests and increases objectivity by minimizing human involvement. A software monitor system with menus and prompts limits the decision making required during test administration. While keyboard parameter selection provides flexibility for research applications, default parameters are included for

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Manuscript received December 15, 1982; revised August 28, 1983.

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TABLE I
TEST SITES FOR EVALUATION OF NEUROLOGIC FUNCTIONS WITH THE COMPUTER-AUTOMATED SYSTEM

NEUROLOGIC FUNCTION	TEST SITE			
	HEAD AND NECK	UPPER EXTREMITIES	LOWER EXTREMITIES	BODY
Mental state (alertness, memory, vigilance, and others^a)	x			
Visual acuity	x			
Hearing	x			
Light touch sense	x	x	x	x
Vibration, two-point discrimination and temperature discrimination sense		x	x	
Strength	x	x	x	
Steadiness (tremor, station)		x	x	
Passive motion resistance or tone (rigidity, spasticity, cogwheeling)		x	x	
Reaction time		x	x	x
Speed of movement		x	x	x
Dexterity^a		x		
Coordination		x	x	
Tracking		x		x
Activities of daily living^a		x		x

^{a} Tests are computer timed.

efficient clinical use. Data logging and file naming are automated to eliminate data loss and/or errors encountered with manual methods. Software-implemented error checking is provided to detect predictable errors when keyboard entries are required. (E.g., in response to a "body side?" question, only "R" or "L" are accepted.)

The system computes easy-to-interpret single number scores for most tests. A printout of reduced data is available for immediate inclusion in patient records. Scores from individual patients and large studies can be analyzed without manual data handling.

Instruments were designed and constructed with state-of-the-art technology including printed circuits for much of the electronics to facilitate reproduction. Consequences of implementing specific segments of a given test with hardware or software were evaluated carefully to provide a more compact system. To meet changing needs and allow simple addition of new tests, design attention was given to development of a system composed of expandable and easy-to-modify hardware and software. Individual tests are integrated into a console station system centered around a minicomputer.

III. SYSTEM COMPONENTS

A Digital Equipment Corporation (DEC) LSI-11/2 minicomputer housed in a Charles River Data Systems (CRDS) MF-211 package forms the core of the system. The MF-211 contains 32K words of resident memory, two single-sided floppy disk drives, power supplies, and modules including a 16-channel analog-to-digital (A/D) converter (12-bit), two-channel digital-to-analog (D/A) converter (12-bit) and display driver (Data Translation DT-1761); real-time clock (Data Translation DT-1769); serial data input/output (I/O) interface (DEC DLV-11J); and a 16-bit parallel data input/output (DEC DRV-11). These modules provide the interface between the computer and support hardware for specific tests.

The MF-211 is mounted in a console, along with a modified Wavetek Model 1951 X-Y display (30-cm diagonal screen) to present stimuli during tracking tests and for other purposes requiring visual displays. A 10-slot card cage containing support hardware for test stimulators and transducers and a multioutput power supply are also housed in the console. Reserve space is allocated in the card cage and the power supply is overrated to accommodate expansion. An auxiliary analog I/O panel provides the facility to connect electrophysiologic amplifiers for implementation of evoked potentials and related electrophysiologic tests.

The console also includes a computer-addressable audio cassette system. Utilizing a Triple-I Model OEM-1A2 stereo cassette deck, any portion of a cassette tape can be addressed and located quickly and accurately by manual keypad or automatic computer instruction. After the technician types a test name, a programmed sequence retrieves a corresponding tape address from a look-up table. Using this address, the system then locates and plays instructions for the patient to carry out the task associated with the selected test. Each instruction is tagged with a 250-ms tone burst which is decoded by the controller to halt the cassette. Instructions may be repeated as necessary by pressing a key (REPEAT) that uses the previous search address and initiates playback after locating it. Features are included for recording tapes with the appropriate format and obtaining search addresses for programming purposes. The tape system is presently in the early stages of evaluation. While we expect increased reproducibility of test instruction administration, the tape facility may represent a step towards more complete automation of future systems where an audiovisual instruction system may be used.

Other system components include a video terminal, a line printer for result output, a plotter for graphical results of certain tests, and two tables that match the main console. Various test stations, with appropriate stimulators and transducers, are assigned to specific sites on these tables to limit setup, and consequently, total testing time. Human factors, including color selections, were considered during system design. We utilized black table tops and console, along with a smoked Plexiglas console panel to provide increased contrast to visual stimuli. Blue trim was added to provide a relaxing effect intended to reduce patient anxiety. Fig. 1 illustrates the system and Fig. 2 summarizes system components and their interconnections.

IV. SPECIFIC TESTS, TRANSDUCERS, STIMULATORS, AND MEASURES

While test parameters (number of trials, rates, etc.) can be keyboard selected, we discuss the preprogrammed (default) values based on pilot studies. Tests are presented in an order that we have found to be reasonable to administer, although

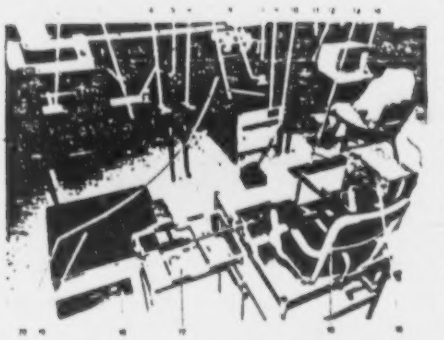

Fig. 1. Wide angle view of the Computer-Automated Neurologic Function Laboratory including the: (1) line printer; (2) vibration, two-point discrimination, and thermal sense tests; (3) multichoice reaction and movement time, attention, and vigilance tests; (4) strength tests; (5) loudspeaker for audio cassette system; (6) touch sense test; (7) touch plates for hand and finger speed and arm lateral reaching and tapping tests; (8) touch keys to control audio cassette system; (9) LSI-11/2 computer system including panel for electrophysiologic (evoked potential, EMG, etc.) data input; (10) position stick for arm tracking tests; (11) capacitance transducer loop for tremor tests; (12) arm rest for resting tremor test; (13) touch plates for foot tapping speed and leg lateral reaching and tapping tests; (14) video terminal; (15) torque motor and drive system for rigidity and spasticity tests; (16) chair and apparatus for testing rigidity and spasticity about the knee joint; (17) apparatus for testing rigidity and spasticity about the elbow joint; (18) foot support to test foot dorsiflexion strength; (19) platform to assess body sway and coordination; and (20) X-Y visual feedback display for coordination tests.

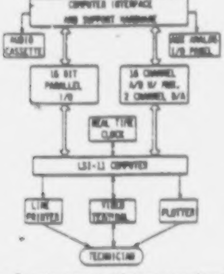
PATIENT
PERIPHERAL TRANSDUCERS AND STIMULATORS
COMPUTER INTERFACE AND SUPPORT HARDWARE
AUDIO CASSETTE
16 BIT PARALLEL I/O
16 CHANNEL A/D W/ MUL., 2 CHANNEL D/A
REAL TIME CLOCK
LSI-11 COMPUTER
LINE PRINTER
VIDEO TERMINAL
PLOTTER
TECHNICIAN

Fig. 2. Summary of components and interconnections for the Computer-Automated Neurologic Function Laboratory.

a subset is usually selected based on the patient's disease, injury, and/or therapy. Depending on tests chosen, evaluation sessions last 1-2 h. The patient must be able to pass several tests (alertness, memory, vision, and hearing) in order to proceed meaningfully to other tests.

Mental Functions

Three tests are used to obtain a limited assessment of mental state with the eight-choice hand reaction/movement time testing board (43 × 33 × 2.5 cm) consisting of eight stimulus and touch sensor assemblies (4 × 4-cm touch-sensitive area) configured in a semicircle (15-cm radius) around a "home" sensor. Capabilities are provided to light each of the eight light-emitting diode (LED) stimulus arrays independently, and to determine the status of the nine touch sensors under program control. An audible tone may be activated with the visual stimulus.

1) Short-Term Alertness—At random intervals (2-5 s from test start or last response), a randomly selected (equiprobable distribution) LED array turns on for 1 s. The patient is instructed to touch the corresponding sensor momentarily. Response accuracy, rather than speed, is emphasized. The score in terms of percent correct is computed as (number of correct responses/ten targets) × 100 after presentation of ten targets.

2) Short-Term Memory—We adopted a common test normally administered verbally [9]. Similar to the popular electronic game Simon™, the patient is presented a sequence of LED stimuli, beginning with a sequence length of *l* and increasing by 1 after successful trials. Following each sequence, the patient reiterates the pattern by touching target sensors corresponding to the LED arrays that formed the sequence. Each LED array is turned on for 2 s with a 1-s delay between lights. The test is terminated when the patient makes an error or delays longer than 10 s during the response period. The length of the longest sequence the patient is capable of repeating serves as the test measure, with a sequence consisting of ten elements as a maximum.

3) Vigilance—A more demanding version of the alertness test, this test of attention span uses a similar protocol, with the exception that the test duration is 7.5 or 15 min. The patient is required to monitor the board constantly and make appropriate responses in a timely fashion (within 1 s after the randomly selected LED is turned off). The percentage of correct responses [100 × number of correct responses/(number of correct + number of incorrect responses)] is recorded as the score. This test is administered to patients whose diseases or therapies may be accompanied by changes in alertness or attention.

Sensory Tests

Our sensory tests, which use the two-alternative forced choice method [10], [11], are designed to achieve the degree of accuracy, reproducibility, and reliability necessary for meaningful assessment, while maintaining reasonable levels of cost, complexity, and time required for administration. With the two-alternative forced choice method, each test consists of a series of trials to determine a patient's sensory sensitivity (commonly called a sensory threshold). Each trial consists of a pair of sequential intervals and an end of trial signal (usually a tone). Each interval begins with a warning signal that prompts the patient to pay close attention. A stimulus of known intensity is presented in only one of the two intervals, and at the end of the trial the patient responds "one" or "two" to indicate the interval during which the stimulus was perceived. These verbal responses serve as inputs to a computer algorithm that implements the methodology, and decisions are made automatically to either present a stimulus during the first or second interval of the next pair (equiprobable), increase or decrease stimulus level for the next trial, and determine when to end the test. For each modality, stimulus intensities are divided into 22 levels, with finer gradation near normal thresholds. Stimulation begins at level 11, specifically assigned to be slightly above the minimum detectable by normal subjects. Two incorrect responses in a row cause a jump to level 16, whereas two correct responses move the stimulus level to 6. From these points, a maximum of four stimulus intervals is presented at any given level. Scoring 75 percent correct responses causes a decrease by two stimulus levels. Any response sequence precluding a 75 percent correct rate in four trials causes an increase by two stimulus levels. This continues until a direction change occurs. Stimulus levels are then changed by 1. Following the third direction change, the test is terminated and the threshold is determined as the average of the stimulus levels where the last two direction changes occurred. The use of the same method for all sensory tests requires the patient to be familiar with only one algorithm. During sensory tests, room lights are dimmed and limitation of extraneous noise is encouraged to allow total patient concentration.

1) Visual Acuity—Instrumented tests have been used with success clinically [12]-[14], but are bulky and time consuming to administer. We included a simple test that measures a combination of acuity and resolving power since several other tests require adequate vision.

Two different tests (vertical or horizontal) may be selected. Either a short (4 cm) vertical or horizontal follower line (1 mm wide) and a longer (10 cm) stationary target line, centered on the *X-Y* screen, are used. Tests begin with the follower at the far left or lower excursion of the display and the patient seated 1 m from the screen (measured to the forehead). During each trial, the follower is moved quickly under program control so that in random order, it is either superimposed over the target or slightly separated from it. The separation magnitude represents the stimulus intensity and the sign (+/- for right/left, above/below) is random (equiprobable). Patient responses are entered via keyboard until a minimum perceptible separation is determined. This separation distance, along with the patient-to-screen distance, is used to calculate the angle subtended in minutes of arc which serves as the score.

2) Auditory Sense—Unilateral and/or bilateral tests are conducted with the patient wearing headphones (Telephonics TDH-39). Representative low- and high-frequency range assessments are available at 0.1 and 5 kHz, respectively. A typical test proceeds as follows. A "START" message is displayed on the *X-Y* screen for 2 s prior to each of the two ~~stimulus intervals forming a trial.~~ During one interval, no audio is presented. The stimulus interval consists of a 0.5-s postprompt delay, followed by a sinusoidal stimulus rising exponentially ($\tau = 1$ s) to the predetermined amplitude (stimulus level). After remaining at this level for 1 s, the level is decreased to zero exponentially ($\tau = 1$ s). The envelope is intended to prevent false interpretations of step pressure waves as tone stimuli. Following a 0.5-s posttrial delay, a "RESPOND" message is displayed until the patient's response is entered by the technician. Sensitivity is measured in decibels.

3) Touch/Pressure—Since the elaborate methods devised for quantifying touch sensation [11] are time consuming and difficult to replicate for routine use, we have instrumented a simple, old technique [15] which has sufficient resolution and reliability for clinical assessment [16].

The technician conducts the test by applying a calibrated nylon filament (Cochet-Bonnet aesthesiometer^{TM} replacement filament) contained in a hand-held aesthesiometer, perpendicular to the testing site until bowing occurs. When applied in this manner, the length of the filament is inversely proportional to pressure at the tip of the filament. We test hairless areas to avoid the lever action from touched hairs. Patient responses of "one" or "two" are entered via pushbuttons on the aesthesiometer after each trial, at which time the computer algorithm decides to either stimulate or not during the first interval of the next trial, informing the technician of the decision via the *X-Y* display, and to either increase or decrease the length of the filament by actuating a motor-driven rotary-to-linear motion translator with position feedback contained within the stimulator. The filament length at the end of the test is converted to corresponding pressure with a programmed calibration curve supplied with the filament.

4) Vibration—Vibration, thermal, and two-point discrimination test instruments are contained in a small console. Stimulators protrude through cutouts in the console's sloping front panel. The console may be placed either on a table for testing upper extremity sensation or on the floor for lower extremity tests. Center areas of the palmar and plantar surfaces of the hand and foot; respectively, are placed over the appropriate panel cutout to serve as test sites.

The vibrometer combines the separately applied features of previous devices [11], [17]. A galvanometer (MFE Corporation Model R4-160VSS), used to drive a stylus sinusoidally (200 Hz), is mounted on an adjustable counter-balanced lever beneath the panel to allow stylus-skin contact force regulation (set at 20 g). The velocity of the 2-mm diameter flat-faced stylus, transduced by a separate coil in the galvanometer, is proportional to the displacement amplitude when frequency remains constant and serves as feedback which is rectified and low-pass filtered at 10 Hz to provide constant displacement amplitudes, even if the load changes. During the interval containing the stimulus, the desired level is approached exponentially over a 3-s interval, maintained for 1 s, and then decreased exponentially. This limits interpretation of stimulus presence as an abrupt force increase rather than vibration. An inter-interval delay of 5 s prevents receptor adaptation from becoming a significant factor.

5) Two-Point Discrimination—Two-point discrimination has long been assessed with hand-held calipers [18]. In this instrumented test, the test site is positioned over a 7-cm panel slot. Beneath the panel, two solenoid-driven styli are mounted on a track. The separation of the styli about a central focus point is adjusted by a drive motor, and a potentiometer provides separation feedback for accurate styli positioning. When a solenoid is actuated, the stylus it drives strikes the test site perpendicularly for 1 s. Solenoids and separation are controlled by the computer. One or both solenoids are activated in random order during each trial. Acoustic damping material and shock mounts are used to reduce the approach velocity and instrument noises (a possible stimulus clue). The test proceeds until the minimum perceptible separation (in millimeters) is determined.

6) Thermal Discrimination—Thermal stimuli have been produced with pumped-fluid thermodes, metals with different heat conduction properties, and solid-state thermoelectric units (for reviews, see Dyck *et al.* [11], [19]). We chose to use the latter device since it is most adaptable to computer control and provides good results clinically.

A thermoelectric heat pump (Marlow Industries, Model MI 1022-02), mounted to a heat sink with thermally conductive epoxy, provides both warm and cool stimuli. The unit is mounted coaxially in a hollow aluminum tube that is attached perpendicularly beneath the console panel, with the surface of the heat pump/heat sink assembly protruding 1 cm. When a test site is placed over the 0.65-cm^2 heat pump area, spring loading maintains a constant but comfortable skin contact. A thermistor is used to sense when the pump's skin contact side has equilibrated to hand or foot temperature. At this time, a small temperature offset (+2°C—warm sensation, -2°C—cool sensation) is generated and controlled by the thermistor feedback. During the stimulus interval, an additional offset (amount determined by simulus level) is presented for 3 s after equilibrium is reached. Temperature is then returned to the preinterval level. The temperature remains at the small offset level during the other interval. The patient responds "one" or "two" to identify the interval during which a temperature change was perceived. The minimum temperature change perceived (in degrees centigrade) is determined after a sequence of such trials.

Tracking

Tracking tasks involve the patient's ability to follow a visual target by coordinated voluntary body control. Appropriate transducer(s) generate signals that control a follower symbol on the display, providing feedback to the patient. The control loop so formed consists of elements with known parameters, except for the patient. These human parameters are a function of the integrity of the patient's sensory, motor, and associative systems. Tracking tests have been shown to be valid and reliable [6], [16], [20]-[27], as well as useful in neurologic evaluation [26], [28], [29] and clinical trials [6], [27], [30]-[35]. A broad selection of tracking modes from our previous test batteries [20], [23], [25] and from others [6], [21] has been modified for inclusion.

For upper extremity tests, the patient's hand manipulates a control stick, moving the arm about the elbow and/or shoulder while sitting in front of the display. The stick pivots at its base, which is in contact with the floor and has sufficient mass to prevent sliding, to provide free movements in an area defined by moving the stick 20° off its vertical axis and scribing a circle. Points on a square inscribed in this circle correspond to points on the display screen. The stick includes a rod grip with a 10-cm circular disk 54 cm above the pivot point to support the fist. Two potentiometers transduce angular positions (lateral and fore-aft) which are low-pass filtered at 20 Hz for digitization.

Studies by others [36], [37] and our group [38] have shown force platform recordings of body sway to be clinically useful. For body sway tests, the patient stands on a square force platform (84 X 84 cm) placed 1.5 m in front of the display. The platform senses the center of pressure along two perpendicular axes (lateral and fore-aft) orthogonal to the patient's central axis. Computer acquisition of raw data allows special signal processing (e.g., digital filtering, automatic gain control, spectral analysis, etc.) without additional instrumentation. Where others [36], [37] usually measure only static or postural properties, we also obtain measures of dynamic body control. This has been attempted previously [39] by electromechanically disturbing the platform (pitch and roll) or the patient. In contrast, our tests require the patient to track a target by voluntarily shifting body weight. Cantilevers mounted at the center of each platform side are instrumented to produce voltage outputs proportional to force. These are combined by analog circuitry to provide two pressure signals normalized to eliminate effects of body weight automatically. For example, the lateral shift output (V_x) is computed as follows:

$$V_x = \frac{V_r - V_l}{V_r + V_l} \cdot K \tag{1}$$

where V_r, V_l are the amplified outputs of the right and left strain gauges and K, the gain constant, is approximately equal to 10. Other devices [37] require the body weight to be dialed in for normalization. Calibration is achieved by placing a 25-kg weight in the center of the platform and adjusting V_r and V_l to equal levels approximately 0.16 of saturation. The weight is then shifted so that V_l is 1 percent of V_r and K is adjusted so that V_x equals the desired level. This provides sufficient dynamic range to test heavy patients. The fore-aft output (V_y) is computed and calibrated similarly. Both force platform outputs are low-pass filtered at 20 Hz.

Either the joystick or platform (as implied by test name) is used to implement the following tests.

1) Arm Sweep Reaction Time and Arm Sweep Speed—Both measures are obtained during the same task, called step tracking. Adapted from our clinical tests [20], [25], a long target line on the display moves instantaneously from side to side at random intervals (4–7 s, uniform distribution). The patient is instructed to move the follower toward the new target location as quickly as possible, and to attempt to superimpose the lines only after arriving in the target vicinity. This instruction set increases the probability of measuring maximum arm velocity. Reaction time is measured from the time the target line changes sides to the time the follower line travels 10 percent of the side-to-side distance (13 cm), and movement time (used here as a measure of speed) is computed as the time to move from 10 to 90 percent of the same distance. This corresponds to a 40° arc sweep of the control stick. As used previously [20], [25], the best eight of ten reaction and movement times in milliseconds are averaged separately to obtain the final score. The 10 percent noise margin at each sweep side allows for patients with resting tremors which complicate detection of movement onset. A type of filter enhances reliable detection. Once the 10 percent point is crossed, the reaction time counter value is stored; then the movement time counter is started. Should the stick position return to the 0-10 percent region before reaching the 90 percent threshold, the value of the movement time counter is added to the previously stored reaction time and the movement time counter is reset. This sequence repeats until the 90 percent limit is crossed. In addition, the follower position is checked just prior to moving the target. If the *Y* position exceeds the 10 percent limit, the movement is interpreted as an anticipation error or high-amplitude tremor. A beep prompts the patient to return to the start position, the target is not moved, and the random interval sequence is reentered. Tests may be performed with horizontal or vertical lines on the display.

2) Arm Random Tracking—In the horizontal test, only random side-to-side deflections of a long target line occur and similar lateral control stick movements, corresponding to coordinated movements about the elbow, are required to move a shorter follower line and track the target. In contrast, up and down target movements in the vertical test are tracked by fore-aft control stick excursions. Movements about the shoulder and elbow are required, permitting assessment of different muscle groups. The absolute value of the difference between target and follower positions (error) is averaged and corrected to yield the measure in deg · s/s or the average angular control stick error magnitude during a 20-s trial. The results of three trials are averaged to produce the final measure. Two-dimensional tracking is a combination of horizontal and vertical tests. The target is a square (1 X 1 cm) that moves over the entire screen area. The patient, via the control stick, moves a cross-shaped follower symbol sized to just fit inside the square. Separate horizontal and vertical component error scores are computed. Random signals that move the target are generated by digitally low-pass filtering (0.15-Hz cutoff) a pulse train with pseudorandom pulse widths. Programming new level information (0 or 1), based on pseudorandom number signs (- or +), at a rate approximately 12 times the filter's cutoff frequency, yields a signal with a 0.5-mean (varying about the center of the screen).

3) Arm Progressive Tracking—Developed by Jex and associates [21] and clinically applied by our group [20], [25], [31], [33], [35], this test is analogous to driving a truck with no brakes down a hill on a winding road. Gaining speed as it proceeds, it becomes increasingly more difficult to negotiate the road and the driver eventually fails. Similarly, a patient tries to keep the follower line superimposed with a stationary target line in the center of the screen, and it becomes progressively more difficult to achieve this goal. The test ends when preset error limits are exceeded. Task difficulty is the function of a variable (λ) which controls the stability point of a digitally implemented first-order divergent pole filter that processes transducer outputs. The transfer function is

$$Y(s) = \frac{2\lambda}{(s - \lambda)} \tag{2}$$

where $s = j\omega$. The filtered output serves as the control signal for the follower line and represents the error in target-follower alignment. The value of λ at the test's end (in radians) serves as the result. For a typical trial length of 10-30 s, λ begins at 1.0 rad and increases at 0.5 rad/s until the magnitude of the error exceeds 20 percent of the screen range. Then the rate is decreased to 0.2 rad/s to approach the patient's limit more slowly. The reciprocal of λ reflects the patient's effective time delay. The best four of five scores are averaged to produce the final measure.

4) Body Sway Coordination—During these dynamic tests, the patient stands at the center of the platform with arms at the sides and shifts body weight to achieve tracking. The position of the follower symbol reflects the center of pressure projected on the platform. Body reaction time, movement speed, and effective time delay are obtained during step and progressive tracking tasks analogous to upper extremity counterpart tests. Measures are computed as described above. For random tracking, the measure used is the integrated absolute value of the difference in target and follower positions. This result reflects the average percent deviation from absolute control of the center of pressure. Parameters that control test difficulty (upper cutoff frequency for random, λ rate of increase for progressive) are adjusted to reflect the differing upper extremity and trunk/lower extremity capabilities.

Two-Dimensional Steadiness

1) Hand Resting and Arm Sustention Tremor—Whereas others [40]-[42] and our group [20], [22]-[25] have used accelerometers for tremor measurements and have recorded movement in accelerations units, we developed a capacitive transducer whose output is a function of hand displacement or amplitude of the tremor. Since primarily displacement is observed by clinicians, the measure should better relate to ordinal scale data. Unlike the capacitive transducer, the average rectified accelerometer output is a function of tremor intensity and frequency. Thus, if frequency increases and amplitude remains the same, an increase in tremor would be observed.

With our dual-axis transducer, neither mechanical nor direct electrical connections to the patient are required. A 46-cm square frame is situated parallel to the seated patient's ventral surface. Perpendicular sides of the frame form fixed capacitor plates and represent the measurement axes. When the patient's hand is placed inside the frame, it acts as the moving plate of a differential capacitor. High-frequency, low-level electrical coupling to the patient is achieved via air dielectric. Although capacitance changes are extremely small, they are significant and measurable. Bandpass filtered, with lower and upper cutoff frequencies of 1 and 20 Hz, respectively, the sensitive differential capacitor system provides a linear voltage versus displacement output. The filtering process allows tremor measurements regardless of absolute position in the frame, although the dc coupled output is also available for potential measurement of pronator drift. Fig. 3 illustrates one axis of the transducer circuitry in block diagram form.

The instrument was calibrated with a device consisting of a grounded 10 X 10-cm aluminum plate connected with a 10-cm rod to a torque motor. The plate is centered in the tremor device perpendicular to the axis to be calibrated. This system is driven at 10 Hz and a fixed deflection amplitude (typically 1 mm) while the transducer output is adjusted to the desired level. With the small angular deflections involved, the plate movement is essentially parallel to the axis of calibration with only small error. A sensitivity of 10 mm/V allows measurement of the wide range of tremor amplitudes encountered.

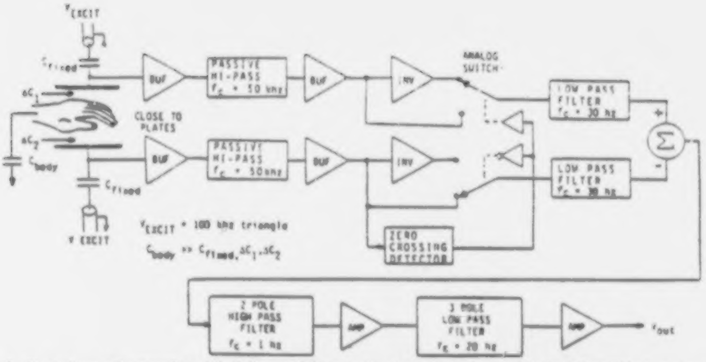
V_{EXCIT}
C_{fixed}
ΔC_1
ΔC_2
C_{body}
C_{fixed}
V EXCIT
CLOSE TO PLATES
BUF
PASSIVE HI-PASS f_c = 50 khz
BUF
INV
ANALOG SWITCH
LOW PASS FILTER f_c = 30 hz
BUF
PASSIVE HI-PASS f_c = 50 khz
BUF
INV
LOW PASS FILTER f_c = 30 hz
+
−
Σ
ZERO CROSSING DETECTOR
V_{EXCIT} = 100 khz triangle
$C_{body} >> C_{fixed}, \Delta C_1, \Delta C_2$
2 POLE HIGH PASS FILTER f_c = 1 hz
AMP
3 POLE LOW PASS FILTER f_c = 20 hz
AMP
V_{out}

Fig. 3. Block diagram for one of two identical axes of the capacitive tremor transducer. A bridge is formed by capacitances C_1, C_2, and C_{fixed}. At excitation frequency of 100 kHz, C_{body} provides low-impedance path to ground. Low input capacitance buffers mounted directly on plate portions of C_1 and C_2 limit loading and provide low-impedance signals for processing circuitry. Synchronous detection is used to recover the amplitude modulation envelope (tremor signal).

Visual feedback may or may not be provided during tests, as preferred by the investigator. The absolute values of the horizontal and vertical outputs are individually integrated for a 10-s trial. The averages of three trials, computed separately for the two dimensions, are utilized as scores.

2) Body Sway Steadiness—We designed a body stability test to measure unwanted movement, such as stance instability, hyperkinesia, or choreiform movements. The patient is required to stand as motionless as possible for three trials, each of 20-s duration. The lateral and fore-aft outputs of the force platform are digitally high-pass filtered (0.5 Hz) to remove static components, and the average integrated absolute values of the lateral and fore-aft center of pressure deviations are computed. Scores are in units of percent instability. Subtracting percent instability from 100 yields the score we use, percent stability. The test is performed with eyes opened and closed.

Speed and Lateral Reaching–Tapping Coordination

Hand and foot testing boards, similar to those we developed previously [29], serve as transducers for tapping speed and lateral reaching-tapping coordination tests. Each board consists of right and left target areas (width: 1.6 cm–hand, 10.5 cm–foot), with center-to-center spacings of 40.6 (hand) and 52 (foot) cm, each of which is flanked by two error regions. The computer determines the status (hand or foot: ON or OFF) of each of the six areas on each board. Test timing begins with the first patient-sensor contact, eliminating the effect of reaction time. A computer-initiated tone ends the test. We describe upper extremity tests to illustrate test execution. Lower extremity tests are similar.

During index finger, hand, or hand-arm tapping speed tests, movement is restricted to voluntarily generated oscillations about either the metacarpophalangeal, wrist, or elbow joints, respectively. Portions of the hand and forearm not involved in tapping rest flat on the table. The patient makes a fist and extends the index finger for index finger and hand tapping speed tests, while all fingers are extended and the wrist is lockec for the hand–arm tapping speed test. The patient is instructec to strike any portion of the combined target and error region: and achieve the maximum repetition rate possible. The num ber of taps made in two 10-s trials, with 10 s between trials are averaged to obtain the test measure.

Arm lateral reaching–tapping coordination is assessed b instructing the patient to strike left and right targets alter nately with an index finger as quickly as possible and to mak no errors for a 10-s trial period. If a finger simultaneousl contacts both target and error sensors, a correct hit is recorded The aiming required makes this test much different from tap ping speed tests; operationally, it is roughly similar to th clinician's classic finger–nose test where both speed and ac curacy may be important. Experimental psychologists [43] [44] have developed the measure we use, index of performanc (IP) in bits/second. A bit is the unit of task difficulty and ca be thought of as the patient's channel capacity when perforr ing the task. The IP is computed as

$$\mathrm{IP} = \frac{1}{\text{movement time}} \cdot \log_2 \left[\frac{A}{W'} + 0.5 \right] \qquad \text{(3}$$

where movement time is the test duration divided by the tot number of taps, A is the amplitude of the alternating mov ments or center-to-center target spacing, and W' is the effe tive target width. This width is computed as

$$W' = K_{cor} \cdot \text{actual target width} \qquad \text{(4}$$

where $K_{cor} = 1$ only when 4 percent errors are made by th patient. Although the patient is initially instructed to mal no errors, in practice he or she is prompted to "move faste if no errors are made or to "be more careful" (which caus slower and more precise movements) if the error rate excee 15 percent, and the trial is repeated. For errors different fro 4 percent, a new k_{cor} is computed, assuming that errors abo the target are spatially distributed in a Gaussian fashion. Th k_{cor} represents the correction factor necessary to adjust t target width when the patient makes more or less than 4 percent errors. The IP, measured as described, is reliable [16] and useful in clinical trials [30]-[35], [45]-[47].

Hand Visual Multichoice Reaction and Movement Time Tests

By increasing the number of possible stimuli and corresponding target points in reaction time/movement time tests, the tests become more complex [48]. Central processes, such as intelligence and mental state, become more significant. Although clinical data are unavailable, Hick's Law (a linear increase in reaction time with the logarithm [base 2] of the number of choices) has been verified in normal individuals [48]. Since complex tests may prove useful for evaluating certain impairments such as diminished central channel capacity, we include multichoice reaction and movement time tests.

Tests are instrumented with the board described for mental function tests, which has several advantages over earlier devices [48], [49]. Mechanical switches (with significant actuation times and forces), incandescent stimulus lights (that reach full intensity after a filament heating delay), and readouts requiring manual data recording are replaced with high-speed capacitive touch sensors, LED arrays, and automatic computer logging of data.

A typical multichoice test begins with the patient's hand contacting the home sensor. A brief tone serves as a ready signal. After a uniformly random time, ranging from 1 to 3 s, either an equiprobably random (1 of 2, 4, or 8 choices with *a priori* patient knowledge of which arrays may light) or predetermined (single choice) LED array is lighted. Reaction timing begins and continues until the patient's hand is lifted from the home position, after which movement timing starts. When the patient's hand contacts the target sensor, movement timing ends. Simple reaction time is also tested by lighting all arrays and measuring the time from stimulation until the patient's hand is lifted from the home sensor.

In comparison to reaction and movement times discussed under tracking tests, these tests involve a more distal body part (a hand compared to an arm or shoulder), and increased central processing is required. New neurophysiological pathways are assessed. Comparing results could improve localization of a lesion.

Passive Motion Resistance (Rigidity, Spasticity, Cogwheeling)

Quantitative methods for measuring muscle tone generally employ recordings of either electromyographic potentials [50], [51] or the force required to move a voluntarily relaxed limb throughout a normal range of motion [52], [53]. In the latter method, the limb was rotated about the respective joint in the horizontal plane to keep the effect of gravity constant, and also to reduce the requirements of motorized drivers. However, for lower extremity testing, the patient assumes an uncomfortable position (lying on one's side on an examination table) while the lower leg is rotated about the knee joint. In addition to discomfort, time spent manipulating the patient into a proper position increases testing time and the apparatus requires considerable clinic space.

Testing for increased limb resistance *against* gravity offers several diagnostic and test administration advantages: 1) with the patient seated, results obtained are directly related to those from clinical examinations; 2) measuring torque versus position against gravity produces an individualized normalization factor proportional to the weight and anatomical structure of the tested limb; and 3) comfort during testing is increased while floor space required for instrumentation is decreased.

To move relaxed limbs, we designed a driver utilizing a geared dc motor (PMI Motors Model U12FG with additional 12:1 speed reduction) connected in a servoloop with velocity feedback. A slotted disk attached to the highest velocity shaft of the motor periodically breaks a light beam to provide a pulse train with a frequency proportional to velocity. A strain gauge (4 Micro-Measurements Model EA-06-500BH-120 strain gauges in bridge configuration) torque transducer and potentiometer with associated amplification circuitry, in series with the driver's output shaft, allow digitization of torque and position, respectively.

The driver is attached to an elevated chair apparatus with a drive shaft that passes directly under the knee joint when the patient is seated. This shaft continues through the opposite side of the chair to the upper extremity apparatus and passes just behind the elbow of a seated patient. Upper and lower extremity shaft attachments were designed to connect to keyed sections of the common drive shaft with two large thumbscrews. Either attachment can thus be moved along the shaft by loosening the thumbscrews, sliding the attachment, and retightening the screws, a procedure which requires approximately 30 s. This eliminates the need to reposition the patient when changing from right to left extremity tests. Only the appropriate attachment is connected during testing. The upper and lower extremity attachments extend below the forearm and calf, respectively. Each attachment has a padded drive surface that rides on a bearing track while the limb is rotated, allowing for the change in the point of rotation about the selected point. Velcro straps snugly but comfortably secure the driver to the limb. Optical limit switches, mechanical switch backups, heavy duty mechanical stops, and a software-initiated torque limit shutdown provide four levels of safety. Fig. 4 schematically illustrates the instrumentation and apparatus.

The computer is programmed to execute a test cycle that is divided into three components: offset determination, a static torque run, and a dynamic torque run. The patient is instructed to completely relax the limb during the cycle. During offset determination, the outputs of the torque and position transducers are recorded for later subtraction from all values obtained during static and dynamic runs to remove any zero offsets present. A static run consists of slowly moving the limb (5°/s over a 70° range with seven programmed stops at 10° intervals. At each stop, five torque measurements (0.5 s apart) are recorded and averaged to produce one of seven static torque readings. Following the last static reading, the driver is returned to the start position for the dynamic run. During this run, the limb is rotated at the preselected velocity (10-40°/s) throughout a 75° range of motion in both flexion and extension while torque and position are recorded at a 100 Hz rate. The knee rotates from 90 to 165°, and the elbow begins at 165° and ends at 90°. The reverse orientation increases comfort between cycles since limbs rest in a neutral position. A preprogrammed test mode, consisting of two cycles

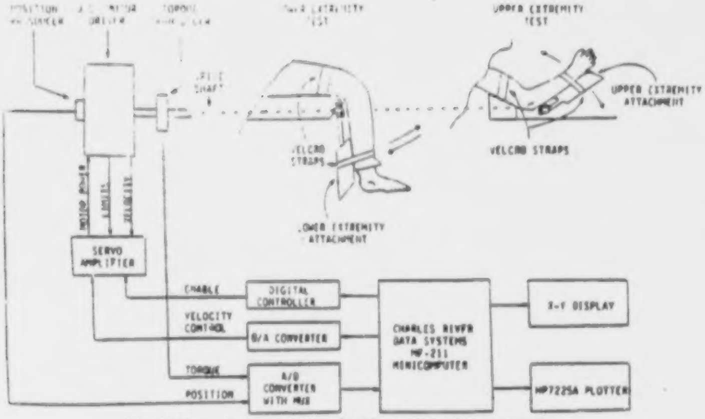
POSITION SENSOR
D.C. MOTOR DRIVER
TORQUE
TEST
UPPER EXTREMITY TEST
SHAFT
UPPER EXTREMITY ATTACHMENT
VELCRO STRAPS
VELCRO STRAPS
LOWER EXTREMITY ATTACHMENT
MOTOR POWER
VELOCITY
SERVO AMPLIFIER
ENABLE
DIGITAL CONTROLLER
VELOCITY CONTROL
D/A CONVERTER
TORQUE
POSITION
A/D CONVERTER WITH MUX
CHARLES RIVER DATA SYSTEMS MF-211 MINICOMPUTER
X-Y DISPLAY
HP7225A PLOTTER

Fig. 4. Schematic representation of passive motion resistance apparatus to test rigidity, spasticity, and cogwheeling about the knee and elbow.

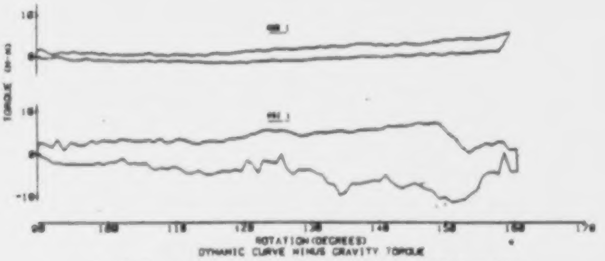

Fig. 5. Torque versus angular position curves (about right knee joint, velocity = 25°/s) for normal subject (NOR 1) and patient with moderate rigidity due to Parkinson's disease (PAT 1). Top line in each loop represents extension run, bottom line is flexion.

at 10, 25, and 40°/s for each of the four limbs, requires about 15 min, including the time required to move the patient from the upper to lower extremity chair.

If the limb is considered as a passive mass (m) located at a fixed radius (r) from the drive shaft, the recorded torque (in n · m) as a function of angular rotation could be represented by

$$T(\theta_r) = mg \sin(\theta_r) \qquad (5)$$

where θ_r is the angle with respect to the vertical in degrees, and g is the acceleration of gravity. However, analytic representations of knee and elbow rotation are much more complex and involve weight, geometry, and dimensions of several limb components. It is not clear how these models behave when disease processes are present. Plots of static and dynamic runs obtained with this apparatus reveal a nearly linear characteristic for normals due to a combination of effects. The point of rotation about the joint changes with the angle of rotation, and the center of rotation is behind the respective joint with this apparatus, not directly through it. Thus, considerable simplification can be realized with a first-order approximation

$$T(\theta_r) = C_1 \theta_r \qquad (6)$$

where C_1 (in n · m/deg) represents the slope of the torque curve and relates to the weight and structure (center of mass) of the respective limb. In the disease case (D), another term ($T_D(\theta_r)$) is added as follows:

$$T(\theta_r) = C_1 \theta_r + T_D(\theta_r). \qquad (7)$$

Since $T_D(\theta_r)$ is elicited dynamically in most mild and moderate cases by evoking abnormal stretch reflexes and/or shortening reactions [51], the first component can be determined from the static torque run and subtracted from dynamic runs, removing the gravitational component and yielding only the disease or normal dynamic component. Fig. 5 shows curves resulting from a point-by-point subtraction of a line fit to dynamic data from the dynamic curves. This technique is useful for producing a zero-centered graphic representation of resistance to motion versus the angle of rotation, as can be seen by comparing data from a normal individual (NOR 1) and a Parkinsonian patient with rigidity (PAT 1).

While plotted data are informative, numeric data are necessary for large-scale clinical trials and some form of data reduction must be applied. We compute two indexes of resistance. A static resistance index (SRI) is obtained as follows:

$$\mathrm{SRI} = \frac{\Delta T_S(7, 6) - \Delta T_S(2, 1)}{\frac{1}{6} \sum_{i=1}^{6} \Delta T_S(1, i)} \cdot 100 \tag{8}$$

where $\Delta T_S(j, k)$ is the difference between the jth and kth static torque measurements. Point 1 is closest to flexion, while point 7 is nearest extension. Since the normal static curves are nearly linear, the SRI is given in percent deviation from normal static tone. A positive percentage is obtained from (8) if the difference in static torque near extension is greater than the difference near flexion, and if an abnormal tendency toward flexion results in greater differences near extension (increased slope) is assumed. From Fig. 5, increased dynamic resistance is indicated by a larger loop area between extension and flexion dynamic curves. This loop area is proportional to the net work done by the motor during a dynamic run cycle, and is nearer to zero for normals since the motor does work during one-half of the cycle while gravity provides equal but opposite effort during return to the start position. In fact, in some normal subjects, a negative loop work is obtained, indicating an unconscious helping or reinforcement partly due to normal reflexes [51].

However, increased loop work for different patients may imply significantly different functional change. A fixed amount of increased loop work may represent a small or large percentage of work done in normally moving the limb (anatomic work or AW) depending on limb size. When measurements are obtained against gravity, AW is a readily available part of the obtained data, specifically, the area under the static curve. However, tonic resistance may also be present, which distorts the portion of the static curve near extension. Therefore, AW is calculated by using the two static points nearest flexion to determine C_1 in (6) as

$$C_1 = \frac{1}{(10^\circ)} \cdot \Delta T_S(2, 1) \tag{9}$$

and performing a digital integration over the 75° rotation angle. Thus,

$$\mathrm{AW}\,(\mathrm{n \cdot m}) = \int_{\theta_S}^{\theta_S + 75} C_1 \theta_i \, d\theta, \tag{10}$$

where θ_S is the starting angle. A dynamic resistance index (DRI) is calculated as follows:

$$\mathrm{DRI} = \frac{\text{loop work}}{\mathrm{AW}} \cdot 100. \tag{11}$$

The DRI represents the increased work due to abnormal resistance based on a percentage of the work normally done in moving the limb over the tested range. Theoretically, normal is 0.0 percent. Negative values are possible if the loop area is negative. In addition to the important normalization achieved, both the SRI and DRI are independent of absolute torque values and, therefore, independent of instrumentation drifts and calibrations. The computer is programmed to compute a loop work, static index, and dynamic index automatically for each cycle on line.

The concepts of the SRI and DRI, suggested by Webster [53] as measures reflecting two resistance components, are not new. However, the method of computing these indexes and the defined terms provide new interpretations of these quantities and increase their sensitivity for discriminating small differences from normal [54].

Strength Tests

We use two force transducers to assess strength. One is held by the technician to determine the maximum force the patient is capable of *resisting* in bilateral evaluation of wrist dorsiflexion, extended arm abduction, foot dorsiflexion, and extended leg flexion. Other limb muscle groups can also be evaluated. The second transducer is grasped by the patient to determine the maximum force *generated* in evaluation of grip strength. Both transducers are connected to the computer system via flexible retractile cords.

The grip transducer consists of a fluid-filled soft plastic bladder of cylindrical shape (3.2 cm in diameter) covered by a slotted aluminum sleeve. Squeezing the sleeve distributes the generated force over a constant bladder area and causes an increase in fluid pressure that is measured by an integrated pressure transducer (National Semiconductor LX1620G). The resistive force transducer is similar with a fluid-filled 0.8-cm diameter, 18-cm long tube formed in a loop and placed between two Plexiglas plates, one with a stiff foam-rubber-padded surface. The transducer straps to the technician's palm with a comfortable elastic cloth. The technician places the padded surface against the appropriate anatomic site and steadily increases force while the patient provides resistance. If necessary, the technician may exert additional force by placing his or her free hand on top of the transducer hand. Both transducers provide a voltage output proportional to force which is repeatedly digitized (100-Hz rate) during a 3-s trial. The completion of a test is sensed when the output voltage falls below a near-zero threshold after achieving a maximum, which is retained as the result for that trial. The computer system then initiates an audible tone, informing the technician and patient that the test is over, while simultaneously a visual display prompts the technician to the next test site. Two trials/site are averaged to produce the score.

These devices are more comfortable (for both the technician and patient) than those used by others [55] or by us previously [4], [16], [32], [33], [45], [47], [56]. Soft but firm patient–transducer interfaces that effectively transfer forces by conforming to the test site replace small area (and, therefore, high-pressure) metal–skin contacts. This eliminates pain during testing, encouraging maximal patient effort.

V. SOFTWARE

We designed software so that the DEC RT-11 operating system is transparent to the technician. Emphasis was placed on the ease of use and minimization of human error. Many repeatable and predictable operations (file naming, averaging of trials, printing formats, etc.) are automated to increase testing and data handling speed, while the required instruction set is limited to basic commands. Thus, experience with software is not required to gain expertise in test administration. The descriptions that follow are intended to illustrate these points.

Monitor System

A separate floppy disk is used for each patient to record test data. All neurologic function "run" files reside on a separate floppy disk in the system drive. Upon running the monitor system program, the technician is prompted for the date and time. The patient's identification number is then requested (usually, the Social Security number). If this is the patient's first examination session, a patient data file (PATDAT.000) and a test result directory file (FILDIR.DAT) are created automatically. The technician is prompted for the patient name which is included in PATDAT.000, along with the identification number. Should the file already exist, the name prompt is skipped. The typed identification number is compared to the stored number, and if different, the technician is prompted with "Was correct ID typed (Y or N)?." A "Y" response causes a "WRONG DISK?" message to be printed and the identification prompt to be reissued, while an "N" response allows the user to reenter the ID number. Following successful execution of these tasks, the technician is allowed to enter up to 100 lines of narrative text. Narratives and corresponding dates entered during successive sessions are stored in sequentially named formatted files (PATDAT.001, PATDAT.002, etc.). The file index (suffix) for the next narrative file is contained in PATDAT.000 and is updated each time a new narrative file is created.

Next, an exclamation point prompt is issued, indicating that the program is ready to receive 1 of 19 commands (17 general types of tests, time request, and test name menu request—each six characters maximum). An expandable look-up table is used to reject invalid commands and set bits in a switch word that correspond to test parameter questions (specific type of tests, body side, extremity, duration, etc.) that must be asked for the selected test. Upon receipt of a valid test name and prompting/entering test parameters, the proper test administration subroutine is executed. Following test completion, a "SAVE DATA (Y or N)?" question allows the technician to reject data obtained from practice or invalid trials. A "Y" response causes present test parameters, time of test completion, and results to be saved in a master result buffer. Completing this function, or an "N" response, initiates printing of a "RETEST (Y or N)?" question. If an "N" response is entered, the master result buffer is written to disk in the form of an automatically named file, i.e., TREMOR.000. The exclamation point prompt is again printed and the monitor waits for a new command. In this case, the file name is generated from the name used to select the test, and the appropriate index is obtained from a constantly updated look-up table stored in FILDIR.DAT. If the response to the "RETEST?" question is "Y," the technician is asked "NEW PARAMETERS DESIRED (Y or N)?." If so, the technician is prompted to enter them. Otherwise, the test executes with the previously entered parameters. The contents of an iteration counter, reflecting the number of times a test was executed with the same parameters, are printed during execution. Note that a data file is not written until a negative response to the "RETEST?" question occurs. Intermediate test results are saved temporarily in the master result buffer sequentially until that time. This buffer also contains reserved space for the date and number of trials saved.

The monitor allows the technician to carry out versatile examination protocols around time-saving, self-structured, automated subunits. Prompts with choices and the requestable menu minimize responsibilities, allowing the technician to monitor the patient. Consistent use of look-up tables facilitates expansion when new tests are added.

Data Management System

Data management in large-scale battery testing has traditionally presented significant problems. Previously, data had to be hand recorded or keyed into a computer. Unlike most biomedical research where there are many data points of similar type (i.e., pressure versus time), in this case there are single number results of many different data types which must be kept separate.

The design of the monitor system with individual patient disks, systematic generation of file names, and automatic inclusion of dates, parameters, and times as part of the stored "results" facilitates automated data management. Because of the approach used to create files, routines were easily written for printing individual results according to several formats by answering three questions: 1) "SPECIFIC FILE NAME? (DEFAULT-NO);" 2) "TEST NAME? (DEFAULT-ALL)," and 3) "DATE? (DEFAULT-ALL)." Thus, printing may be requested for results in a given file, all files of a given test on a given date, all files of a given test on all dates, all files of all tests on a given date, and all files on all dates. Formatting of data for group statistical analysis is equally automated and simple. While running a formatting routine, patient disks are inserted one at a time. File names are generated and files are read while stored parameter data and date information are used to extract and place data into separate matrices of common format for each date. Each matrix row corresponds to a different subject, while each column represents different measures (dominant side simple reaction time, etc.). Undefined columns are left for new measures. These matrices are subsequently stored in automatically named files (DATA.000, DATA.001, etc.) on the system disk where they can be expanded row-wise and accessed by statistical programs as needed.

VI. CLINICAL EVALUATIONS

The test system has recently been evaluated for reliability and effects of test repetition (learning), age, and handedness. For previously used tests, results [57] compare favorably to those obtained from earlier noncomputerized versions of the test battery [16], [29], [45], [46]. The laboratory has also been used to detect early function changes in subjects at risk for Huntington's disease [57] and to detect changes consistently in normal neurologic function brought about through hypnosis. Results of these studies are reported elsewhere [58], [59]. More detailed evaluation of tests for reliability, validity, and effects of learning, handedness, age, gender, motivation, and fatigue is underway.

VII. Discussion

The computer-automated quantitative examination of neurologic function represents the culmination of a 20-year effort by our group to develop, evaluate, and utilize quantitative neurologic function tests clinically. Synthesis of this automated system, integrating both newly developed and extensively applied tests with the inherent and desirable features of computer control, should permit significant expansion into new clinical research areas. These include assessment of chronic disease progression, rehabilitation therapy, environmental and industrial toxicosis, and drug or surgical therapy.

The computerized Neurofunction Laboratory offers key advantages: 1) convenient and efficient data acquisition, storage, analysis, and retrieval; 2) ability to generate and control real-time stimuli easily; 3) automated partial calibration of many transducers; 4) administration of a broad battery of tests in a relatively short time by a trained technician (a nonphysician); and 5) simplicity of modification and expansion. Important steps towards standardization, reproducibility, and reliability may be realized. We feel that these qualities make replication of the prototype system attractive. If available, clinicians could routinely send a patient to a Neurofunction Laboratory to assist with diagnosis, assess results of therapy, or determine disease progression.

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0018-9294/84/0500-0414$01.00 © 1984 IEEE

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OCTOBER 1986

NEED

Quantification of parameters which reflect a human's ability to execute daily tasks has been the focus of many individual and often diffuse interdisciplinary research efforts. Practitioners in health care (neurologists, orthopedists, therapists, etc.); personnel selection and screening (for airline pilots, police and fire fighters etc.); and in engineering design (human factors), have had very few tools available to them to both acquire and evaluate objective and quantitative data on which critical decisions can be made. Typically, such information encompasses mental status, strength, handedness, range of motion, muscle tone, speed, dexterity, coordination, sensory perception, etc. Traditionally, subjective rating scales (1=good, 2=average, 3=poor) have been the most widely used method to obtain discriminating documentation of such functions and are still considered by many practicioners to be state-of-the-art. The relatively few research efforts which have recognized the need for a more comprehensive battery of measurement tools have either lacked sufficient scope or magnitude, or have not included the coordination and important follow-up necessary to stimulate standardization, industrialization and widespread research and clinical applications.

As a direct result of the unique research we have conducted and are continuing to pursue, a new philosophy of human sensory and motor function measurement has been established. A broad and expandable quantitative test battery, the only sensory and motor function data base world wide, and 8 cooperating data collection centers have been developed and placed into operation. It is now feasible to administer a comprehensive, noninvasive battery of strength, speed, reaction, coordination, body stability, and other tests with results computed, recorded, and placed into the data base automatically. The array of standardized measurements, forming what we refer to as a "human performance profile", represents the "fingerprint" of an individual's abiltity to function. Through the use of individually designed analysis software, it is now feasible to consider interpretation of such a profile for specific applications ranging from treatment plan determination for rehabilitation patients and objective documentation of functional status for insurance purposes, to predicting the probability of success in professions which require a high degree of sensorimotor skill such as dancing, or determining a pilot's fitness to fly.

This concept served as the basis of a Rehabilitation Engineering Center grant, funded by the National Institute of Handicapped Research (NIHR), which facilitated establishment of the Center for Advanced Rehabilitation Engineering (CARE) in 1983. CARE represents a consortium effort involving The University of Texas at Arlington, The University of Texas Health Science Center at Dallas, The Dallas Rehabilitation Institute, and The Dallas Rehabilitation Foundation. Under NIHR and supplementary funding, research has been conducted to expand the scope and application breadth of the measurement system to include domains of orthopedics, physical and occupational therapy, and physical medicine.

A crucial turning point in basic and applied research has been reached with the identification of a human performance theory which provides a scientifically conceptual framework for measurements and interpretations. Possibilities for defining new dimensions are clear. There is an unequalled opportunity to make social and scientific impact.

The availability of technology and a suitable philosophy that can fill the long standing quantification gap are beginning to drive evolutionary processes and open doors for acceptance of new methods. A prime example is provided by Steven L. Wolf, Ph.D., Physical Therapy at Emory University:

> "It is proposed, therefore, that the philosophy underlying the primary training of physical therapists practitioners be altered so that the 'laying on of hands' assumes a secondary rather than a primary importance. The major strategy in training physical therapists should evolve around mechanisms to achieve quantification of changes resulting from the laying on of hands. This reorientation would demand that physical therapy students learn as much, if not more, about instrumentation, measurement and quantification than they learn about neuromuscular reeducation techniques."
>
> (Spring 1985 Research Section Newsletter of The American Physical Therapy Association)

Clearly, the need initially envisioned by a relatively small number of individuals is now becoming more widespread. The importance and probability of utilizing research results and for achieving technology transfer, as well as for defining new research areas, is increasing accordingly.

Cognizant of long standing and emerging needs and with documented broad-based support of our fundamental philosophy, the Human Performance Institute is established to pursue the following mission:

* Provide a systematic, comprehensive, timely, and cost-effective approach to the measurement of a wide variety of parameters which reflect the true ability of individuals to perform, or not to perform, tasks of daily living.
* Investigate basic components of the comprehensive human performance theory we have identified to obtain greater understanding through coordination of basic knowledge and investigative research efforts.
* Cultivate and develop solutions to applications-dependent human performance parameter measurement problems.
* Cultivate interest and develop complementary strategies and approaches for the enhancement of human performance through direct application of both basic sciences and engineering technologies.
* Serve as an education, training and information resource center encompassing major aspects of human performance.
* Promote and facilitate the wider application of proven quantitative measurement and performance analysis technologies throughout relevant disciplines.

CURRENT PERSPECTIVE

Within the Center for Advanced Rehabilitation Engineering research efforts have resulted in:

- The "Human Performance Measurement System" which:
  - Is a modularized, microcomputer controlled test configuration of specially designed sensors, stimulators, processing software and measurement schemes.
  - Measures 19 major functional categories over most body sites including mental status, vision, audition, speech, anthropometric features, range of motion, strength, speed, reactions, coordination, steadiness, body balance, muscle tone, manual dexterity, gait, and endurance.
  - Provides more than 500 functional measures which can be applied comprehensively or as a selective subset.
  - Measures on a non-invasive basis, client/patient basic elements of performance while executing short stressor tasks.
- Replication of the system with the establishment of multiple cooperating data collection and research laboratories at the:
  - University of Texas Health Science Center (at Dallas)
  - Dallas Rehabilitation Institute
  - St. Paul Hospital (at Dallas)
  - Shriners Hospital (at Chicago)
  - Sports Medicine and Rehabilitation Clinic, Inc. (at San Antonio)
  - National Rehabilitation Hospital (at Washington, D.C.)
  - Dallas VA Medical Center
  - Wadsworth VA Medical Center (at Los Angeles)
- A master data base, against which all client/patient data acquired is compared, which:
  - Is one of a kind, world-wide.
  - Is mainframe-based, accessible to and fed by all test sites, on a dial-up basis.
  - Contains more than 2,000 data records of which 50% define normal performance and 50% represent traumatically injured or progressive neurologic disease populations such as Parkinson Disease, Multiple Sclerosis, and head and spinal cord injuries.
- The dissemination of research results through refereed publications, professional society presentations, and scientific exhibits.

The HUMAN PERFORMANCE INSTITUTE is the logical outgrowth of all work done to date.

FUTURE PERSPECTIVE

The current core of investigators is enthusiastically pursuing a coordinated effort toward realization of the stated mission. Specific plans call for:

- Establishment of individual targeted laboratory facilities dedicated to:
  - Instrumentation and Measurement Development
  - Human Performance Measurement (for comprehensive basic studies)
  - Data Management
  - Expert Systems Development
- Enhancing the scope and quality of the measurements which define the Human Performance Profile, as dictated by research results.
- Conducting research in the relevant basic areas of:
  - Human performance theory and hierarchical concepts
  - Improved physical and physiologic sensors
  - Automated data quality control
  - Sensory perception
  - Characteristic descriptions of populations
  - Control mechanisms of the neuromuscular system
  - Effects of behavioral and environmental factors on human performance
- Coordinating the active acquisition and investigation of data and knowledge bases for:
  - Patient populations and treatment interventions
  - Jobs and career planning
  - Athletic disciplines
  - Dysfunction patterns for diagnostics
  - Drug abuse screening
  - Neurologic, muscular, and skeletal system components and their interactions
  - Vocational decision-making factors for the handicapped and non-handicapped alike
- Conducting and coordinating research with others to realize results with end-user impact across the many application disciplines.

Growth rate of the Master Data Base is conservatively estimated to be 5,000 records per year utilizing both current and planned satellite data collection sites. The availability of standardized, quantitative measures covering a breadth of human performance parameters and populations represents a base of information providing a unique opportunity to advance knowledge, and to result in meaningful impact. A continuous cycle of increased understanding leading to identification of solutions, ideas, and new problems is inherent in the concept of the initiative. The long-term research potential, in yet to be defined areas, is unequalled.

SOCIETAL IMPACT

Current and proposed work is expected to impact society in diverse ways which include:

- Fostering injury prevention through the detection of potential weaknesses via the Human Performance Profiles.
- The continuing move to establish standardized measurement technologies and methodologies.
- The early detection of neurological dysfunction as the result of drug side effects and/or disease, particularly in the elderly and the handicapped.
- The pre-screening of applicants/employees to establish the probability of success in specific jobs and careers.
- Providing more precise definitions of neurological, orthopedic and therapeutic patient intervention needs.
- The long term tracking of human performance degradation, on either a single client/patient or multi-client/patient (gross) basis, to provide significant levels of behavioral feedback.
- Providing an excellent environment in which to train both professional and semi-professional medical practitioners.
- Stimulating increased public awareness regarding human performance parameters and related factors which can lead to performance degradation and/or enhancement.

ECONOMIC IMPACT

Anticipated economic impact includes:

- Stimulating the economy through the technology transfer of both basic and applied research results to the private sector.
- Reducing health care costs through objective and scientifically based validation of legitimate insurance claims.
- Reducing health care costs through providing more accurate and rapid diagnostic, prescriptive regimens, and proven treatment modalities.
- Stimulating the systematic proliferation of measurement facilities, with the resultant spawning of new support service businesses.

THE TEAM

The core team will be comprised of faculty co-investigators and staff from UTA, with individual collaborations from faculty at UTHSCD, and other organizations.

At UTA:

- Dr. G. Kondraske (Director of the Institute, providing overall coordination of efforts and resources, at UTA)
- Dr. W. von Maltzahn (Associate Professor, BME)
- Dr. K. Behbehani (Associate Professor, BME)
- Dr. M. Chwialkowski (Associate Professor, EE and BME)
- Dr. R. Richmond (Research Associate, BME)
- Dr. E. Pape (Associate Professor, IE)
- Dr. J. Troutman (Assoc. Director for Information and Development)
- Physical Education Department
- Ph.D. and M.S. candidates in engineering (biomed., elec., etc.)
- 6 technical and 3 clerical full-time staff members
- New faculty, visiting scholars, and staff expected to join in fulfilling the objectives of the Institute

Key individuals at other sites who actively collaborate with Institute investigators include:

- Dr. V. Mooney (Center for Advanced Rehabilitation Engineering Co-Medical Director, at UTHSCD)
- Dr. G. Wharton (Center for Advanced Rehabilitation Engineering Co-Medical Director, at the Dallas Rehabilitation Institute)
- Ms. S. Smith, M.S., P.T. (Center for Advanced Rehabilitation Engineering Co-Director of Clinical Applications, at the UTHSCD)
- Dr. W. Simmons (Alamo Bone and Joint Clinic, San Antonio)
- Dr. W. Tourtellotte (VA Wadsworth Medical Center, UCLA)
- Dr. K. Syndulko (Associate Professor, Psychology, UCLA)

The mission requires the support of a broad-based collaborative and multidisciplinary team. The Institute provides the vehicle for individual contributions by additional university and industrially based investigators in disciplines such as physical therapy, physical education, loss prevention, psychology, social work, business, physiology, and other areas to provide a dynamic and expanding team capable of meeting the challenge at hand.

PARTICIPATION

Private sector organizations are encouraged to inquire about the Board of Associates Program. For more complete and detailed information and data on the current and proposed work of the HUMAN PERFORMANCE INSTITUTE, and how you or your organization can have an opportunity to participate in research programs or as a patron of:

- One or more laboratories dedicated to INSTRUMENTATION and MEASUREMENT DEVELOPMENT, HUMAN PERFORMANCE MEASUREMENT, HUMAN PERFORMANCE DATA MANAGEMENT, and EXPERT SYSTEMS DEVELOPMENT.
- Seed funding to allow current faculty in various departments to become involved in the work of the Institute.
- A visiting scholar program dedicated to attracting outstanding multidisciplined scientists and engineers for both singularly focused and collaborative research.
- Graduate fellowship programs designed to train highly qualified degree candidates to conduct multidisciplinary human performance research.
- Additional general funding needed to obtain adequate staff to both administer and manage the significant growth anticipated for the Institute and its clinical affiliations, over the coming decade.

Please feel free to call or write:

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UNIVERSITY OF TEXAS AT ARLINGTON
ARLINGTON, TEXAS 76019-0038

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All programs of the University of Texas at Arlington are open to qualified individuals regardless of race, sex, national origin and educationally unrelated handicapped.

loner." He avoids his teammates who do not use drugs. Soon he is taking drugs throughout the day.

Dr. Bergfeld says 4 or 5 players on a 50-man football roster typically will fit this drug-using profile, as will 2 or 3 baseball players on a 25-member team and 1 basketball player on a 12-man squad.

"I find it very ironic that the teams and their physicians are trying to help the professional athletes get off and stay off drugs and that the players' union is fighting the effort," adds Dr. Zarins.

"(Drug) testing is a necessity because we have a drug problem at all levels of sports," concludes Dr. Leach. *AMN 3/14/86*

ATLANTA HAWK TREE ROLLINS HELPS ATHLETES STAY AWAY FROM DRUGS

Tree Rollins, the 7-foot center for the Atlanta Hawks, has formed a non-profit group called the National Progressive Athletes' Committee. The purpose of the group, says Mr. Rollins, is to find job opportunities and investments for professional athletes during their off seasons.

"Most of the time, when the drug problem comes up, the athlete is out of his season, with [illegible] around," says Mr. Rollins. "When you've got all that idle time, you need something to do." *AJ 7/10/86*

NEW PUBLICATIONS AND FILMS

We begin our listings with two outstanding videos we think every group working for drug and alcohol abuse prevention should have on hand.

VIDEOS

DRUG-FREE KIDS: A PARENT'S GUIDE, produced by Susan Newman, Scott Newman Center and Video Associates, 5419 Sunset Boulevard, Los Angeles CA 90027, 213-463-3255, $39.95, available in video and book stores as of September, 1986. The classic prevention tool. Ms. Newman invited a number of prominent actors, who gave their time, to conduct — and how not to — interact with teenagers to prevent them from using drugs and alcohol. The best prevention film made to date at a price everyone can afford. Should be in every home raising teenagers, in every school and every prevention group. Accompanying workbook available from Scott Newman Center, 35 North Lake Avenue, Pasadena CA 91104.

SHATTERED — IF YOUR KID'S ON DRUGS, A Valente-Kritzer Production, MCA Home Entertainment available in video stores as of November, 1986. This video picks up where the other ends, examining two families whose adolescents are in so much trouble with drugs only treatment will help. Burt Reynolds and Judd Nelson guide the viewer through this excellent introduction to the treatment process which removes the fear and anxiety all families face when they make the decision to place their drug abuser — and themselves — in treatment. An outstanding companion to the prevention video listed above.

BOOKLETS

KIDS AND DRUGS, Joyce Tobias, R.N., Panda Press, 4111 Watkins Trail, Annandale VA 22003, 1986, $3.95 single copy, soft cover, 2-9 copies, $3.50 each, 10-49 copies, $3.00 each, 50-99 copies, $2.00 each. An excellent, comprehensive guide to adolescent drug abuse. Adults.

POST-DRUG IMPAIRMENT SYNDROME, Forest S. Tennant, Jr., M.D., Veract Publications, 338 South Glendora Avenue, West Covina CA 91790, 1986, $10.00, soft cover. Discusses the long-lasting impairment resuting from drug use. Teens and adults.

FILMS

ENJOYING SOBRIETY, Sterling Productions, Inc., 1609 Sherman, Suite 201, Evanston IL 60201. Twenty-five minute film giving helpful information on how to stay sober. Rental (16mm only), $75; purchase, 16mm $460; Beta or VHS, $410. Teens and adults.

PAMPHLETS

EMPLOYEE DRUG SCREENING, DETECTION OF DRUG USE BY URINALYSIS, U.S. Department of Health and Human Services, 1986. Single copies free as long as supplies last. DHHS Publication No. (ADM) 86-1442. National Clearinghouse for Drug Abuse Information, P. O. Box 416, Kensington MD 20795. Adults.

BOOKS

INTERVENTION, HOW TO HELP SOMEONE WHO DOESN'T WANT HELP, Vernon E. Johnson, Johnson Institute Books, 510 First Avenue North, Minneapolis MN 55403-1607, 1986, $7.95 soft cover. A step-by-step guide for families and friends of chemically dependent persons. Teens and adults.

HOW AND WHEN TO SUSPECT DRUG USE IN AN ATHLETE

RECURRENT PROBLEM WITH:

- Late to practice
- Ignores curfews
- Falls asleep during day
- Misses appointments
- Stays up too late
- Skips meals

BEGINS TO SHOW:

- Poor motivation
- Lack of hustle on field
- Ignores orders, lacks discipline
- Sloppy hygiene, appearance
- Irritable, loses temper
- Unexplained absences
- Common, routine injuries won't heal, are recurrent

SHOWS THESE SIGNS, SYMPTOMS:

- Depletes energy
- Droopy eyelids, reddish eyes
- Excessive scratching, breaking out of skin
- Constantly running, red nose
- Recurrent bouts of flu or colds that require medical attention
- Appears overstimulated or "hyper"
- Becomes withdrawn and less communicative
- Repeated automobile and traffic violations

Source: "How To Identify, Prevent and Guide Treatment of Drug Abuse by Youth." Forest S. Tennant, Jr., M.D., Committees of Correspondence, Danvers, Massachusetts, 1985.

What Works

SCHOOLS WITHOUT DRUGS

United States Department of Education
William J. Bennett, Secretary
1986

Fact Sheet

Signs of Drug Use

anging patterns of performance, appearance, and behavior may signal
e of drugs. The items in the first category listed below provide direct evi-
nce of drug use; the items in the other categories offer signs that may in-
cate drug use. For this reason, adults should look for extreme changes in
ildren's behavior, changes that together form a pattern associated with
ug use.

gns of Drugs and Drug Paraphernalia

- Possession of drug-related paraphernalia such as pipes, rolling papers, small decongestant bottles, or small butane torches.
- Possession of drugs or evidence of drugs, peculiar plants, or butts, seeds, or leaves in ashtrays or clothing pockets.
- Odor of drugs, smell of incense or other "cover-up" scents.

lentification with Drug Culture

- Drug-related magazines, slogans on clothing.
- Conversation and jokes that are preoccupied with drugs.
- Hostility in discussing drugs.

igns of Physical Deterioration

- Memory lapses, short attention span, difficulty in concentration.
- Poor physical coordination, slurred or incoherent speech.
- Unhealthy appearance, indifference to hygiene and grooming.
- Bloodshot eyes, dilated pupils.

ramatic Changes in School Performance

- Distinct downward turns in student's grades—not just from C's to F's, but from A's to B's and C's. Assignments not completed.
- Increased absenteeism or tardiness.

hanges in Behavior

- Chronic dishonesty (lying, stealing, cheating). Trouble with the police.
- Changes in friends, evasiveness in talking about new ones.
- Possession of large amounts of money.
- Increasing and inappropriate anger, hostility, irritability, secretiveness.
- Reduced motivation, energy, self-discipline, self-esteem.
- Diminished interest in extracurricular activities and hobbies.

Recognizing Drug Use

Recommendation #3:

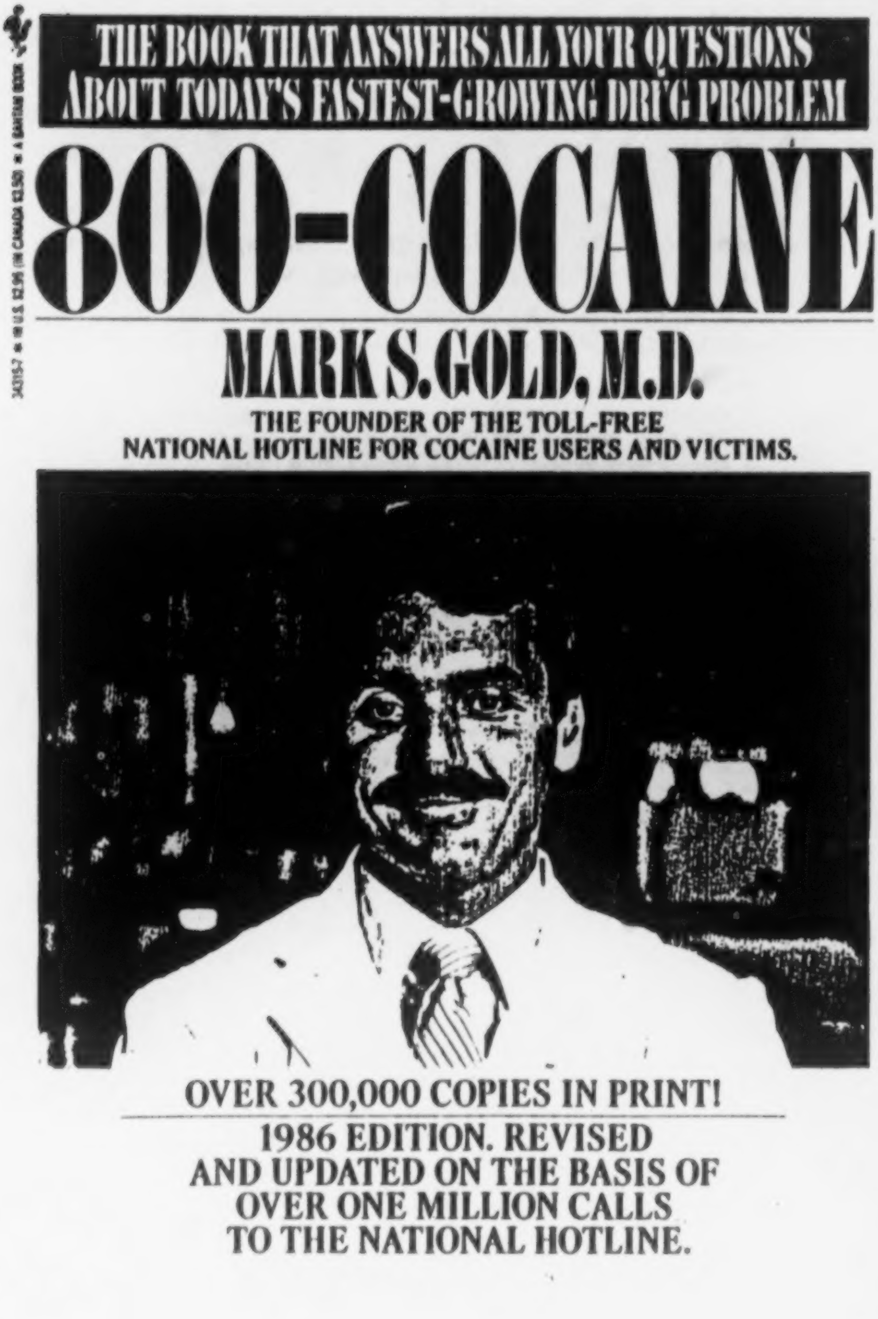
Be knowledgeable about drugs and signs of drug use. When symptoms are observed, respond promptly.

Parents are in the best position to recognize early signs of drug use in their children. In order to prepare themselves, they should:

- Learn about the extent of the drug problem in their community and in their children's schools.
- Be able to recognize signs of drug use.
- Meet with parents of their children's friends or classmates about the dru problem at their school. Establish a means of sharing information to determine which children are using drugs and who is supplying them.

Parents who suspect their children are using drugs often must deal with their own emotions of anger, resentment, and guilt. Frequently they deny the evidence and postpone confronting their children. Yet the earlier a dru problem is found and faced, the less difficult it is to overcome. If parents suspect their children are using drugs, they should:

- Devise a plan of action. Consult with school officials and other parents.
- Discuss their suspicions with their children in a calm, objective manner. Do not confront a child while he is under the influence of drugs.
- Impose disciplinary measures that help remove the child from those circumstances where drug use might occur.
- Seek advice and assistance from drug treatment professionals and from parent group. (For further information, consult the resources section, pages 59-73.)



THE BOOK THAT ANSWERS ALL YOUR QUESTIONS
ABOUT TODAY'S FASTEST-GROWING DRUG PROBLEM

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MARK S. GOLD, M.D.

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34315-7 • IN U.S. $2.95 (IN CANADA $3.50) • A BANTAM BOOK assistance provided could not have been more gratifying for the employees or the company: Eighty-six percent were found to be wholly rehabilitated—meaning "restoration to a former state of health and efficiency"—or improved. The category in which the greatest degree of rehabilitation was found was for alcohol- and drug-related problems.

A vast improvement in performance and sharp reductions in absenteeism, disability leave, accidents on and off the job, and visits to the company's medical department occurred following treatment, resulting in minimum saving to the company of almost half a million dollars. Among men and women referred for help because they were performing poorly and were in jeopardy of losing their jobs, more than 85 percent were no longer performing poorly following EAP intervention and of these, 41 percent was promoted following care. Ken's experience, therefore, was not the exception.

With alochol and marijuana, cocaine has become a prime drug to use at work. It is available, easy to conceal, fast acting and hard to diagnose. It is a contagious disease at work with one user influencing 3–10 others. Cocaine abusers constantly send out signals to their colleagues and supervisors, which, picked up and acted on promptly and with sensitivity, can lead to restoration of pre-cocaine behavior, health, and values. On the job, the signs to look for are erratic or unusual behavior; failure to meet schedules; missed appointments; increasing lateness and unexplained and lengthy disappearances in the course of the workday; irritability, negativism, and constant arguments; sharp mood swings and decreased energy and confidence. People abusing cocaine generally care less about their personal appearance and hygiene. However they always seem to be having physical problems, and going to physicians. They usually lose their former competitive spirit, seeming not to care anymore about promotions. In this connection, they may even ask to be demoted and to work in more isolated areas (to avoid observation). They take more and more sick leave, and when confronted with poor performance, they may ascribe it to poor health.

Supervisors who observe such changes can be helpful to the troubled person in various ways. They should:

- Document work-related lapses.
- Discuss these at the earliest possible moment with the person involved.

- Suggest that there is help available and offer to refer the person to the appropriate official in the company.

- Make clear that the job will be in jeopardy unless the behavior is changed and performance improved.

Under no circumstances should supervisors diagnose what is causing the problem. They usually have no proof and are unqualified to do so. For the same reasons, and despite good intentions, they should never try to be therapists. Finally, moralizing is offensive, useless, and a waste of time. A cocaine abuser is sick, not depraved; he or she needs help, not sermons. In my experience, people with serious cocaine-related problems will often accept offers of help, especially when their jobs are on the line.

On the other hand, overprotectiveness by colleagues and complicity with the drug user can delay treatment beyond the point when recovery is a possibility. I have worked with actors and prominent singers whose managers thought it more prudent to keep their clients supplied with drugs than to help them with their problem. Cancelled or bungled tapings, missed performances, and, eventually, fewer and fewer bookings were the common outcome of such poor judgment.

Many of the entertainers I have treated told me that there was often someone in their entourage whose sole job it was to obtain supplies of drugs and to take the rap for dealing or being found in possession. In exchange for this "service" huge amounts of cash went from performer to lackey. Bail and legal expenses were paid whenever necessary. With pals like this, the entertainer needed no enemies. Years of struggle and widely acclaimed talent are sacrificed because of the failure of colleagues to take positive steps to get help.

The ultimate loser in the drugs-in-the-workplace phenomenon is the public. The public pays for the car brakes that don't work properly; for the clothing seams that rip open after three wearings; for the doctor's error when he writes a faulty prescription; for the failure of the policeman to answer calls for help because he is impaired; for the sloppy workmanship of personnel in nuclear plants; for the stockbroker who fails to make a transaction or makes the wrong one.

We are all endangered and/or cheated unless we are aware of and know what to do about drugs in the world of work.

The CHAIRMAN. Thank you very much.

Mr. Griswold.

STATEMENT OF ERWIN N. GRISWOLD

Mr. GRISWOLD. Thank you, Mr. Chairman.

I appear here by invitation of the committee, but I should disclose that my first contact with the problem was when I was retained by AMTRAK for the purpose of advising them as to steps they might propose and particularly with respect to the constitutionality of the statutory provisions in this area.

In connection with my testimony, I have a prepared statement which I hope will be included in the proceedings of the committee.

The CHAIRMAN. It will.

Mr. GRISWOLD. Which I will only summarize. The statement has attached to it a draft of a bill which was worked out to provide for random testing of safety related employees of railroads engaged in interstate commerce. In the prepared statement I have expressed my opinion that such a statute, properly drafted—and I have no doubt that the draft I made can be improved in various ways—would be held to be constitutional by the Supreme Court.

In particular, it is sometimes overlooked and though Mr. Adler did quote the word "unreasonable," it is often forgotten that the Constitution does not forbid searches and seizures. It forbids unreasonable searches and seizures.

There are a good many recognized exceptions where searches and seizures can be had without a warrant, such as searches in connection with an arrest and also a good many such as fire and health inspections which relate to safety and convenience of the people.

My view is that a properly guarded, safeguarded, limited, circumscribed, defined procedure for conducting random tests of safety related employees of railroads engaged in interstate commerce is not unreasonable and would not be held to be unreasonable by the Supreme Court. It is an important element that the procedures be carefully provided in order to comply with due process.

In my prepared statement I also deal with self-incrimination, the fifth amendment. I do not think that is a very difficult problem. With respect to the procedures, it is essential that the statute authorizing random testing have adequate provision to maintain the integrity of the tests so that the samples can be taken and can be safeguarded and not have substitutions made, and for the accuracy of the testing which requires standards for the laboratories. It is also necessary, I think, to have provision for the confidentiality of the test. These tests, the results of these tests should not be made available to the general public but only for proper matters of administration within the operating of the railroad.

There should be provision for the dignity in making the tests, though I think that is a relatively simple matter, since all of us take physical examinations from time to time.

Congress can provide standards to be used in these matters and, as I have said, if a statute authorizes the making of random tests and does provide for the due process considerations, it is my due opinion that the Supreme Court would uphold the constitutionality of the statute.

[Submissions of Mr. Griswold follow:]

STATEMENT MADE BY ERWIN N. GRISWOLD BEFORE THE SENATE COMMITTEE ON THE JUDICIARY

May 13, 1987

You have asked my opinion as to the constitutionality of a bill which would provide for random testing of railroad employees for drug and alcohol usage. For that purpose, I have prepared a draft of a bill, and this is attached to this Statement. I assume that the testing envisioned would involve no greater physical intrusion or invasion of privacy than that incident to the blood, urine, and breathalyzer tests now in use.

After careful consideration, I have concluded that the draft bill, if enacted, would be found to be consistent with constitutional requirements. In setting forth the reasoning which leads me to that conclusion, I will first discuss the constitutional implications of the provisions requiring the testing to take place. I will then discuss the extent to which the Constitution requires that procedural protections precede imposition by employers of sanctions for positive test results.

I should point out that this opinion does not deal with the constitutionality of current Federal Railroad Administration regulations (see 49 C.F.R. §§ 219.1 et seq.) that provide for post-accident, reasonable suspicion, and pre-employment testing of certain railroad employees for substance abuse. The FRA regulations do not establish a random testing program, and contain provisions, procedures and safeguards not under consideration here.

I. CONSTITUTIONALITY OF FEDERAL LEGISLATION REQUIRING ADMINISTRATION OF DRUG AND ALCOHOL TESTS TO RAILROAD EMPLOYEES.

In dealing with the subject of this opinion I will examine five basic constitutional issues: 1) whether a statute authorizing drug testing would impair the validity of any contractual rights the employees might enjoy to such an extent as to violate due process; 2) whether, in the absence of any statutory requirement that each test be administered only upon the full and free consent of each employee being tested, the tests would violate the Fourth Amendment's proscription against unreasonable searches and seizures; 3) whether the statute would violate the constitutional right to privacy; 4) whether the statute would violate the Fifth Amendment's protection against self-incrimination; and 5) whether the testing would violate substantive due process.

1. The Proposed Statute Would Not Impermissibly Impair Contract Rights.

Individually or collectively bargained employment contracts may well contain provisions prohibiting or severely limiting the rights of railroad companies to conduct random drug tests. The attached legislative proposal, if enacted, would mandate testing and hence would nullify employees' contractual rights in such circumstances. More generally, employment contracts may contain grievance procedures and standards which, in turn, might be bypassed or abrogated by provisions contained in the draft bill or in implementing regulations. The Due Process Clause of the Fifth Amendment limits the power of Congress to impair contracts. E.g., Lynch v. United States, 292 U.S. 571 (1934).

Much of the case law in this area arises under the Contract Clause, which is applicable to the States but not to the federal government. Pension Benefit Guaranty Corp. v. R.A. Gray & Co., 467 U.S. 717, 732 n. 9 (1984). Judicial standards applicable under the Due Process Clause to federal legislation are less "searching" than those applicable to the States. National Railroad Passenger Corp. v. Atchison, Topeka and Santa Fe Railway Co., 470 U.S. 451, 472-73 n. 25 (1985); Pension Benefit Guaranty Corp., supra, 467 U.S. at 733. Moreover, recent cases concerning federal impairment of contracts have in the main concerned "economic" legislation, and have alluded to the traditional deference federal courts show to legislative judgments underlying such legislation. E.g., National Railroad Passenger Corp., supra, 470 U.S. at 476-77; Pension Benefit Guaranty Corp., supra, 467 US. at 729. A drug testing statute is more easily classified as a public safety measure supported by the Commerce Clause than as economic legislation. Nevertheless, what authority there is leads me to conclude that the proposed bill, if enacted, would not unconstitutionally impair private contractual rights.

In determining the validity of federal statutes burdening contract rights, the Supreme Court considers 1) whether there is any impairment; 2) whether the impairment is of "constitutional dimension" (i.e., whether it is "minimal" or "substantial") and 3) whether Congress, in creating a "substantial" impairment, has "acted in an arbitrary and capricious way." National Railroad Passenger Corp., supra, 470 U.S. at 472.

In the case of the proposed drug and alcohol testing statute, any impairment it might cause of specific contractual prohibitions against testing would not implicate the central purposes underlying ordinary employment contracts. While grievance procedures and standards, in general, assume more significance with respect to contractual expectations, the draft bill's procedural requirements, limited as they are to the drug and alcohol testing context and embodying the protections required by procedural due process precedents (see below), would not constitute a significant impairment.

In contrast, the governmental interests expressed by the proposed legislation (protecting interstate commerce and travel, as well as public safety) are substantial. The railroad industry has experienced a number of drug and alcohol related accidents. These accidents have resulted in considerable loss of life, property damage, and danger to the community. The Supreme Court in practice often shows even greater deference to public safety measures than it does to economic legislation, even in the face of constitutional claims. See, e.g., Hodel v. Virginia Surface Mining and Reclamation Association, 452 U.S. 264, 298-304 (1981); Jacobson v. Massachusetts, 197 U.S. 11 (1905). See also Energy Reserves Group v. Kansas Power and Light Co., 459 U.S. 400, 411-12 (1983) (under the Contract Clause, "remedying of a broad and general social or economic problem," and addressing an "emergency situation" confronting the public, are "significant and legitimate public purpose[s]" which justify "substantial" contractual impairments). Furthermore, the Supreme Court has stated explicitly that "contractual arrangements remain subject to subsequent legislation by the presiding sovereign." Merrion v. Jicarilla Apache Tribe, 455 U.S. 145, 148 (1982). And even in the context of the more stringently reviewed Contract Clause cases, the Court indicates that a less rigorous level of scrutiny is appropriate if the impaired contract involves private, as opposed to governmental, obligations. National Railroad Passenger Corp., supra, 470 U.S. at 471-72 & n. 24. These considerations lead to the conclusion that any judicial balancing of contractual impairments with governmental interests would result in a decision upholding the validity of the proposed legislation.

2. The Proposed Statute Would Not Violate the Fourth Amendment.

The Fourth Amendment prohibits the government from conducting unreasonable searches or seizures of persons or property. At least within the context of a criminal investigation, administration of a blood test constitutes a "search" within the meaning of the Fourth Amendment. Schmerber v. California, 384 U.S. 757, 766 (1966). A urine test, while not involving a physical intrusion into the body, imposes a similar level of compulsion. Furthermore, a urine test is at least as invasive as a search of a person's home; and home searches unquestionably involve Fourth Amendment protections.1/

1/ Accordingly, the analysis below assumes that the testing program would be viewed by the Supreme Court as a Fourth Amendment search.

However, a good argument can be made on the basis of Wyman v. James, 400 U.S. 309 (1971), that testing would not constitute a search. In Wyman, a recipient of AFDC (Aid to Families with Dependent Children) benefits asserted Fourth Amendment rights in refusing to allow caseworkers to visit her home. The Court held that no search was involved, noting that home visits were not forced or compelled; that petitioner's refusal to permit the visits violated no criminal laws; that the only consequence of the refusal was termination of benefits; and that the visits served the public interest as expressed in the welfare laws. The

[Footnote continued on next page]

The Supreme Court determines whether a search is "reasonable" within the proper construction of the Fourth Amendment by balancing the need for the search against the "invasion of personal rights that a search entails." Bell v. Wolfish, 441 U.S. 520, 559 (1979). Although a search of property is in many situations presumed to be unreasonable if conducted without a warrant, see See v. Seattle, 387 U.S. 541, 543 (1967), and although warrantless searches of persons generally must be supported by some degree of individualized suspicion, the constitutionality of the proposed bill receives support from two lines of Supreme Court cases.[2]

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[1] [Footnote continued from previous page]
petitioner in Wyman had been receiving benefits prior to her refusal to permit home visits. Moreover, the Supreme Court in Wyman clearly recognized that home visits on occasion uncovered evidence of welfare fraud. 400 U.S. at 317-19, 323.

The parallels between the facts of Wyman and a legislative scheme mandating random drug testing of employees responsible for public safety are significant. Accord, Napper v. Everett, 632 F. Supp. 1481-1484 (N.D. Ga. 1986) (employee who refuses to submit to drug testing has not been "searched"). Both situations involve random intrusions on individuals' privacy, and both require individuals to choose between protecting privacy and maintaining livelihoods or vital income streams. Both legislative schemes are supported by very real and self-evident needs for measures safeguarding the public interest.

Nonetheless, the Supreme Court in recent years has tended to focus on Fourth Amendment "reasonableness," sidestepping the question of whether a "search" is involved. Cf. Marshall v. Barlow's, Inc., 436 U.S. 307, 313 (1978) (Fourth Amendment applies to civil, as well as criminal, investigations). A test of body fluids, furthermore, could be held more intrusive than the home visits involved in Wyman.

In any event, reliance on Wyman would require inclusion in the drug and alcohol testing statute of many or all of the same types of protections as are necessary to qualify the testing scheme as a "reasonable" search.

[2] Decisions of federal appellate courts upholding random drug testing include McDonell v. Hunter, 809 F.2d 1302, 1307-9 (8th Cir. 1987)(prison guards tested); Spence v. Farrier, 807 F.2d 753 (8th Cir. 1986)(inmates); Shoemaker v. Handel, 795 F.2d 1136 (3d Cir.), cert. denied, 107 S. Ct. 577 (1986)(jockeys); Committee for GI Rights v. Callaway, 518 F.2d 466, 474-77 ((D.C. Cir. 1975) (military personnel). Cf. National Treasury Employees Union v. von Raab, No. 86-3833 (5th Cir. April 22, 1987)(testing of customs agents applying for promotions).

First, the Supreme Court has consistently upheld legislative schemes which subject individuals to unwelcome physical intrusions where such intrusions are necessary to protect public safety and human life. See, e.g., Jacobson v. Massachusetts, 197 U.S. 11 (1905) (statute authorizing a board of health to compel smallpox vaccination of all adults is constitutional); Roe v. Wade, 410 U.S. 113, 154 (1973) (despite a woman's constitutionally-protected right to privacy with respect to her decision whether to carry a child to term, the State's interests in safeguarding health, in maintaining medical standards, and in protecting potential life become preeminent after the fetus is viable). Smallpox epidemics and legalized abortion may pose more immediate or certain threats to human life and public safety than does substance abuse among railroad workers. Nonetheless, the dangers to the public posed by drug and alcohol use by railroad employees appear to be real and documented. Jacobson and Roe v. Wade establish the Supreme Court's willingness to accommodate the needs of public safety over individual liberty when necessary. Because the present proposal for drug and alcohol testing is explicitly limited to those railroad employees who could by improper job performance endanger the physical safety of persons or property, Jacobson and Roe v. Wade support the constitutionality of the proposed bill.

But Jacobson and Roe v. Wade probably provide insufficient support by themselves to insulate a testing scheme from Fourth Amendment attack. Tens of thousands of people die on U.S. highways every year as a result of alcohol-related accidents, and yet the Supreme Court, citing the Fourth Amendment, has held that stopping cars at random involves an unreasonable search. Delaware v. Prouse, 440 U.S. 648 (1979). The public safety purposes behind the Occupational Health and Safety Act are obvious, and yet the Supreme Court held in Marshall v. Barlow's, Inc., 436 U.S. 307 (1978), that warrantless searches of work sites conducted under that statute by OSHA officials violated the Fourth Amendment. Accordingly, additional support must be found for the constitutionality of a drug and alcohol testing statute. Supreme Court cases concerning administrative searches of heavily regulated businesses supply the answer.

In at least three cases, the Supreme Court has held that warrantless, random searches by government regulators of heavily-regulated businesses are "reasonable" when performed without force and pursuant to appropriate standards. See Donovan v. Dewey, 452 U.S. 594 (1981) (underground and surface mines); United States v. Biswell, 406 U.S. 311 (1972) (firearms); Colonnade Catering Corp. v. United States, 397 U.S. 72 (1970) (alcoholic beverages). Each of these cases cites the history of extensive regulation of the affected industry, noting that the proprietors of individual businesses within the industry accordingly could have no reasonable expectation of privacy with respect to their establishments. The cases also emphasize the need for warrantless searches in order to meet the reasonable needs of public interest.

Railroads were among the first modes of transportation to be extensively regulated. Although in recent years railroads have experienced some deregulation, governmental scrutiny remains close, particularly with respect to two areas that are vital in the present context: labor (see, e.g., the Railway Labor Act, codified as amended at 45 U.S.C. § 151 et seq.) and safety (see, e.g., the Federal Railroad Safety Act, codified as amended at 45 U.S.C. § 431 et seq.). The Federal Railroad Administration, an office of the Department of Transportation, is charged with executing the Secretary of Transportation's statutory responsibilities for enforcing "all railroad safety laws of the United States." 49 U.S.C. §§ 103, 1655. Accordingly, it is my conclusion that the regulated industries exception to the warrant requirement applies to the subject proposal for warrantless drug and alcohol testing of railroad employees who hold safety-sensitive positions.

With respect to the requisite standards and safeguards, the Supreme Court has stated:

> 'Where Congress has authorized inspection but made no rules governing the procedures that inspectors must follow, the Fourth Amendment and its various restrictive rules apply.' Colonnade Corp. v. United States, [397 U.S.] at 77. In such cases, a warrant

> may be necessary to protect the owner from the 'unbridled discretion [of] executive and administrative officers,' Marshall v. Barlow's, Inc., [436 U.S.] at 323, by assuring him that 'reasonable legislative or administrative standards for conducting an . . . inspection are satisfied with respect to a particular [establishment].' Camara v. Municipal Court, 387 U.S. 523, 538 (1967).
>
> . . . .
>
> [A] warrant may not be constitutionally required when Congress has reasonably determined that warrantless searches are necessary to further a regulatory scheme and the federal regulatory presence is sufficiently comprehensive and defined that the owner of commercial property cannot help but be aware that his property will be subject to periodic inspections undertaken for specific purposes.

Donovan v. Dewey, 452 U.S. at 599, 600. The Donovan Court distinguished Marshall v. Barlow's, Inc. by noting that OSHA

> fails to tailor the scope and frequency of such administrative inspections to the particular health and safety concerns posed by the numerous and varied businesses regulated by the statute. . . . Similarly, [OSHA] does not provide any standards to guide inspectors either in their selection of establishments to be searched or in the exercise of their authority to search.
>
> . . . . Accordingly, a warrant was constitutionally required [in Marshall] to assure a nonconsenting owner, who may have little real expectation that his business will be subject to inspection, that the contemplated search was 'authorized by statute, and . . . pursuant to an administrative plan containing specific neutral criteria.' [Marshall v. Barlow's, 436 U.S.] at 323.

Donovan v. Dewey, 452 U.S. at 601.

Obviously, the regulated industries/administrative search exception to the Fourth Amendment's probable cause and warrant requirements has been carefully limited. The Court rejected the applicability of the exception in Marshall v. Barlow's, supra, in Michigan v. Tyler, 436 U.S. 499 (1978) (warrantless search of a building to investigate the cause of a fire), in See v. City of Seattle, 387 U.S. 541 (1967) (warrantless fire code inspections), and in Camara v. Municipal Court, 387 U.S. 523 (1967) (warrantless building inspections). In cases in which the exception has been applied, the Court has stressed the particular statute's overriding public purpose and the fact that the heavily regulated nature of the particular industry gives individuals burdened by the searches effective notice that such searches may well be incident to the ordinary course of conducting business. In cases in which the exception has not been applied, the Court stresses the lack of strict standards, prescribed in advance, either by the statute itself or by authorized and specific executive action, restricting the discretion of the officials performing the searches.

The attached proposal is drafted in such a way that the regulated industries cases provide sufficient additional support to immunize it from Fourth Amendment attack.3/ The proposal requires that notice of the testing program be given to employees who are among the group to be subjected to testing. In addition, the proposal requires the Secretary of Transportation to promulgate regulations insuring that the testing is administered on a truly random basis, that employees are not harassed, and that only employees who perform safety-sensitive functions will be tested. Administrative regulations are also to be promulgated to protect employees' privacy to the maximum extent practicable. Finally, the proposed bill contains explicit findings to be made by Congress attesting to the public safety hazard posed by substance abuse in the railroad industry and to the intent of the legislation

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3/ The exception, of course, has been applied to searches of business establishments, and not to searches of individuals. Supreme Court cases undoubtedly show greater solicitude for the rights of persons as opposed to those of businesses. But the Supreme Court on several occasions has upheld "searches" of individuals (or their homes) in situations where no particularized suspicion existed. See Wyman v. James, 400 U.S. 309 (1971) (visits by caseworkers to homes of recipients of welfare benefits are reasonable); United States v. Martinez-Fuerte, 428 U.S. 543 (1976) (permanent traffic checkpoints near borders are not incompatible with the Fourth Amendment); Delaware v. Prouse, 440 U.S. 648, 663-664 (1979) (Justice Blackmun concurring in invalidation of random automobile stops on condition that the opinion does not cover, for example, stops of every tenth car). Cf. Camara v. Municipal Court, 387 U.S. 523, 534-39 (1967) (while warrants are necessary for housing code inspections, the warrant need not "necessarily depend upon specific knowledge of the condition of the particular dwelling," but can instead depend on, for example, the condition of the surrounding neighborhood).

These cases demonstrate that even with respect to non-commercial settings, the Fourth Amendment's "reasonableness" standard contains no irreducible individualized suspicion requirement, assuming that other safeguards are present.

to address that hazard. These features should be sufficient under the Supreme Court's decisions to insure the proposed statute's validity under the Fourth Amendment.

3. The Proposed Statute Would Not Violate Constitutional Rights to Privacy.

As the Supreme Court recognized in Roe v. Wade, "a right of personal privacy, or a guarantee of certain areas or zones of privacy, does exist under the Constitution." 410 U.S. at 152. Supreme Court justices have variously attributed the right to privacy to the First Amendment, to the Fourth and Fifth Amendments, to the penumbras of the Bill of Rights, to the Ninth Amendment, and to the concept of liberty guaranteed by the first section of the Fourteenth Amendment. Id. Regardless of the precise source of the right to privacy, there are three right to privacy arguments that could be made in any attack on the constitutionality of a drug and alcohol testing statute: that drug test results reveal drug use occurring off the job, as well as on; that the employer or the government will disseminate information derived from urine or blood regarding individual employees' drug and alcohol usage and medical histories; and that undergoing properly secured urine tests may be embarrassing.

The fact that test results may reveal off-the-job as well as on-the-job drug use would pose no constitutional impediment. In New York Transit Authority v. Beazer, 440 U.S. 568 (1979), the Court upheld a municipal transit authority's policy prohibiting employment in any capacity of persons undergoing methadone drug treatment programs. The district court's findings, which the Supreme Court accepted as true for purposes of argument, indicated that some persons undergoing methadone treatment would be employable. Nevertheless, the Court upheld the constitutionality of the challenged employment policy. Although Beazer addressed an Equal Protection, rather than a right to privacy, argument, the decision demonstrates that the Constitution does not require employers to tailor rational employment policies to the point that adverse employment consequences flow only to those employees whose misbehavior in fact detracts from job performance. Similarly, a drug and alcohol testing statute justified by public safety concerns is not invalid merely because it permits employers to act on the basis of drug usage that may not have occurred on the job.

On the other hand, the Supreme Court has shown sensitivity to the "threat to privacy implicit in the accumulation of vast amounts of personal information in computerized data banks or other massive government files." Whalen v. Roe, 429 U.S. 589, 605 (1977). In Whalen, the Court upheld the constitutionality of a New York statute which required physicians to file with the State Health Department copies of every prescription issued for specific drugs. The required prescription forms identified the prescribing physician, the dispensing pharmacy, the drug and dosage, and the patient's name, address, and age. In upholding the statute, the Court relied heavily on provisions of the statute which sharply limited access to the files, stating that "[w]e . . . do not decide any question which might be presented by the unwarranted disclosure of accumulated private data -- whether intentional or unintentional -- or by a system that [does] not contain comparable security provisions." 429 U.S. 605-6.

Administration of drug and alcohol tests, of course, creates risks that medical information unrelated to use of those substances will be disclosed to employers; that employers or the government will maintain extensive files recording test results and other medical information; and that the information contained in the files will be disclosed to persons or organizations without regard to the legitimate policies supporting the statute. The clear implication of Whalen is that a drug and alcohol testing statute must preclude unnecessary disclosure of, or overly comprehensive maintenance of records regarding, test results and other medical information. The proposal avoids right-to-privacy pitfalls by requiring the Secretary of Transportation to promulgate regulations 1) prohibiting recording or use of any medical information derived from the tests that is unrelated to substance abuse; and 2) limiting access to and use of test results to persons and companies responsible for transportation safety.

The argument regarding embarrassment attendant to performance of urine tests cannot withstand analysis. No one could dispute the right of the government or employers to compel physical examinations of persons who operate airplanes or trains. Indeed, physical examinations are routinely performed by employers even in jobs unrelated to public safety. See also Fed. R. Civ. P. 35, permitting federal courts to order physical examinations of litigants. Urine testing is, or could be, a standard part of such routine physical examinations. In these circumstances, opponents will be hard-pressed to show how a drug and alcohol test is any more humiliating than procedures already administered nationwide by, among others, certain public employees and employees physically responsible for transporting the public.

4. The Fifth Amendment Privilege Against Self Incrimination Does Not Apply to Physical Tests.

The Fifth Amendment prohibits the government from compelling an individual to incriminate himself. It is well settled, however, that the privilege does not apply to "non-testimonial" acts such as providing handwriting samples, voice exemplars, or blood samples. See, e.g., United States v. Euge, 444 U.S. 707 (1980); United States v. Dionisio, 410 U.S. 1 (1973); Schmerber v. California, 384 U.S. 757 (1966); Holt v. United States, 218 U.S. 245, 252 (1910). No principled Fifth Amendment distinction can be drawn between these other non-testimonial acts and providing a urine or blood sample. Thus, the privilege against self incrimination provides no constitutional impediment to drug and alcohol testing.

5. Testing Would Not Violate Substantive Due Process.

In Rochin v. California, 342 U.S. 165 (1952), and Winston v. Lee, 470 U.S. 753 (1985), the Court held that forced administration of certain medical procedures so "shocks the conscience" as to violate substantive due process. Rochin involved forced administration of an emetic; Winston involved major surgery.

Substantive due process clearly poses no threat to the validity of drug and alcohol testing legislation. First, the proposed bill in no way sanctions administration of tests by physical force. In addition, the Rochin and Winston cases involved far more intrusive procedures than drug and alcohol testing would. In fact, there is authority that nonconsentual administration of a blood test is not invasive enough to implicate substantive due process. Breithaupt v. Abram, 352 U.S. 432 (1957). A urine test is even less invasive. The proposed bill contains safeguards to insure that test results are reliable, and that each employee has an opportunity to contest a positive result.

An employee who does not want to be tested need not be. But he must face the consequences, of which, under the proposed statute, he will be given prior notice. Substantive due process requires no more.

II. CONSTITUTIONAL REQUIREMENTS REGARDING IMPOSITION OF SANCTIONS AGAINST EMPLOYEES WHO TEST POSITIVE FOR SUBSTANCE ABUSE

Any statutory scheme for random testing of employees will usually result in disciplinary decisions being made with respect to employees who test positive. The question arises, therefore, whether, and to what extent, imposition of sanctions will trigger procedural due process requirements.

The Proposed Bill Contains Adequate Procedural Protections For Employees Subject To Discipline For Substance Abuse.

The Fifth Amendment protects against governmental deprivations of life, liberty or property without due process of law. Where a federal statute requires drug and alcohol testing and mandates sanctions to be applied against employees who test positive, the government is sufficiently involved to implicate procedural due process. Compare Moose Lodge No. 107 v. Irvis, 407 U.S. 163, 177-79 (1972).

Procedural due process rights attach only where the individual who would invoke them has constitutionally-protectible liberty or property interests. See Board of Regents v. Roth, 408 U.S. 564, 570-72 (1972). Among the property and liberty interests protected by procedural due process are the following: the liberty not to be foreclosed from a range of employment opportunities, id. at 574; certain beneficial interests constituting "legitimate claim[s] of entitlement" as "defined by existing rules or understandings that stem from an independent source such as state law," id. at 577; and the liberty not to have one's good name and reputation unfairly besmirched by public disclosures in connection with loss of another right previously enjoyed or in the course of termination from employment. Bishop v. Wood, 426 U.S. 341 (1976); Paul v. Davis, 424 U.S. 693, 701-712 (1976); Board of Regents v. Roth, 408 U.S. at 572-76. To the extent that imposition of sanctions by employers under the proposed legislation would involve deprivation of any such liberty or property interests, the statute should require that appropriate procedural protections be afforded to employees affected.

In this day when the employment-at-will doctrine is being eroded in many States and formal contracts are becoming less crucial to aggrieved employees claiming rights to continued employment, situations in which an employee will have no protectible property interest in continuing his present employment are increasingly rare. Moreover, the vast majority of railroad employees who will be subject to testing under the proposed federal statute undoubtedly are covered by valid collective bargaining agreements, which surely are the source of one or more "property" rights. Finally, since the draft bill would permit common carriers to consider past drug and alcohol test results in deciding whether to hire a job applicant and in determining what sanctions should be imposed against a current employee who tests positive, the statute in some circumstances might for all practical purposes foreclose an individual from a significant range of employment opportunities. Thus, the statute should require procedural protections, at least where permanent or temporary loss of employment or salary is contemplated.

The requisite procedural safeguards include notice to the employee of the test result and an opportunity for a hearing prior to final imposition of sanctions. Cleveland Board of Education v. Loudermill, 470 U.S. 532 (1985). At some point, the employee must have an opportunity to appear before an impartial hearing officer. Gibson v. Berryhill, 411 U.S. 564 (1973). The draft bill satisfies both procedural due process requirements, since it 1) provides for pre-disciplinary notice and an opportunity to be heard; and 2) provides for review of disciplinary sanctions by an arbitrator selected in accordance with the Railway Labor Act or with regulations promulgated by the Secretary.

CONCLUSION

In the foregoing, I have endeavored to review the constitutional questions which may be raised in connection with the attached proposal for a federal statute requiring random drug and alcohol testing of railroad employees. For the reasons which I have indicated and on the basis of the authorities cited, it is my opinion that the proposed bill, if enacted, and properly implemented, would survive scrutiny under the Constitution in the United States Supreme Court.

4/29/87

A BILL

To provide for testing for the use of alcohol or drugs by railroad employees performing safety-sensitive functions, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Railroad Safety Act of 1987".

Sec. 2. The Congress finds that--

(1) alcohol and drug abuse pose significant dangers to the safety and welfare of the nation;

(2) the use of alcohol and drugs has been demonstrated to affect significantly the performance of individuals, and has been proven to have been a critical factor in transportation accidents;

(3) the nation's railroads carry passengers, hazardous material, and other important cargo, and all citizens depend on the operators of railroads to perform in a safe and responsible manner;

(4) the greatest efforts must be expended to eliminate the abuse of alcohol and use of drugs, whether on duty or off duty, by railroad employees whose failure to perform their duties properly poses a substantial risk of serious damage, injury, or death;

(5) the testing of uniformed personnel of the armed forces has shown that the most effective deterrent to abuse of alcohol and use of drugs is increased testing, including random testing; and

(6) adequate safeguards can be implemented to ensure that testing for abuse of alcohol or use of illegal drugs is performed in a manner which protects an individual's right of privacy, ensure that no individual is harassed by the manner in which employees are selected for testing, and ensure that no

individual's reputation or career development is unduly threatened or harmed by inaccurate testing or by use of test results in a way that is not warranted for protection of the public safety.

Sec. 1. Section 202 of the Federal Railroad Safety Act of 1970 (45 U.S.C. 431) is amended by adding the following new subsection (l) at the end thereof:

"(l)(1) The Secretary shall, within one year from the date of enactment of this subsection, complete a rulemaking proceeding to establish rules and regulations requiring that railroad employees holding safety-sensitive positions shall be subject to testing on a random basis to determine the use of alcohol or drugs by such employees.

(2) The rules and regulations established by the Secretary pursuant to this subsection shall:

(A) ensure that all employees subject to random testing authorized by this subsection must be given reasonable notice that they are subject to such testing and of the consequences of a positive test result, of a failure to cooperate with the testing, or of interference with the accurate and reliable administration of such tests.

(B) provide that a percentage determined by the Secretary of all employees who hold safety-sensitive positions shall be tested within a minimum frequency period that is determined by the Secretary to be sufficient to serve as an effective deterrent against abuse of alcohol and use of drugs by such employees;

(C) ensure that employees or groups of employees are selected for testing by impartial methods, so that no employee is harassed.

(D) provide, to the maximum extent practicable, for individual privacy in the collection of body fluid samples for testing;

(E) require procedures for a chain of custody in order to ensure that test samples are properly identified from the time of collection to the time when analysis of the samples is completed;

(F) require that all laboratories involved in the testing of any employee under this section shall comply with applicable governmental licensing requirements, and shall meet such accreditation and proficiency standards as the Secretary may establish, which shall preempt any inconsistent requirements of a State or local government;

(G) provide, unless the Secretary determines that alternative testing technologies are available that will satisfactorily ensure reliable test results and identifies such technologies in the regulations, that all initial tests of body fluids which indicate the use of alcohol or drugs shall be confirmed by a test using a different scientifically recognized method that is capable of providing quantitative data for specific substances identified in the initial tests.

(H) provide for the confidentiality of results of random testing authorized by this subsection by prohibiting any recording or use of medical information obtained in such tests that does not relate to improper use of alcohol or drugs, and by limiting the use of such test results to determining eligibility for participation in rehabilitation programs, for determining medical fitness for duty, or for administering discipline based upon use of alcohol or drugs; except that test results pertaining to use of alcohol or drugs may also be provided to the Secretary, to any railroad or other common carrier to whom a railroad employee has applied for employment, or to any railroad on whose property an individual will perform in a safety-sensitive position.

(I) provide that, prior to imposition of sanctions against any employee as a result of a test conducted pursuant to the random testing program authorized by this subsection, the employee receives notice of the disciplinary charges and an opportunity to be heard by his employer; and also ensure that the employee has an opportunity to have any disciplinary action reviewed by an impartial arbitrator or tribunal. For purposes of this subsection, an arbitrator or tribunal is impartial if it is

(i) appointed in accordance with Section 3 of the Railway Labor Act, if applicable; or, if not applicable,

(ii) selected in a manner authorized in the regulations promulgated by the Secretary.

(J) provide that the determination of eligibility for participation in a rehabilitation program of a railroad and the assessment of discipline for improper use of, or impairment by, alcohol or drugs shall continue to be determined by individual railroad programs without regard to the testing program authorized by this subsection and the regulations issued pursuant to it; provided that the regulations shall specify that a railroad may impose upon an employee who refuses to cooperate with the administration of a test authorized by the regulations, or who intentionally interferes with the accurate and reliable administration of such test, the same discipline that the railroad could have imposed if the employee had tested positive and was not eligible for participation in a rehabilitation program.

(3) For purposes of this subsection, the following terms shall have the meanings specified below:

(A) "Safety sensitive positions" are positions held by railroad employees that, if the duties of the position are improperly performed or not performed at all, could directly result in loss of life, serious physical injury, or serious property damage, and that are identified as such in the regulations issued by the Secretary.

(B) "Drug" shall mean any substance that has known mind-altering or function-altering effects on a human subject, specifically including any psychoactive substance and including, but not limited to, controlled substances as defined in section 201(6) of the Controlled Substances Act [21 U.S.C. § 802(6))]. As to a particular employee, "drug" does not include any substances prescribed or authorized for the employee by a medical practitioner, if the substance is used at the dosage prescribed or authorized, and if the medical practitioner (or at the employee's option, a physician designated by the railroad) has made a good faith judgment, with notice of the employee's assigned duties and on the basis of the available medical history, that use of the substance is consistent with the safe performance of the employee's duties."

Sec. 2. Section 202 of the Federal Railroad Safety Act of 1970 (45 U.S.C. 431) is amended by adding the following new subsection (m) at the end thereof:

"(m) The Secretary shall review rules and regulations governing alcohol and drug use in railroad operations that are in effect prior to the date of enactment of this subsection, and shall, within one year after the date of enactment of this subsection, revise such rules and regulations as the Secretary deems appropriate to enhance safety of railroad operations. Such review shall include an assessment of whether such regulations, or any parts thereof, should be applicable to railroad employees other than those currently covered."

The CHAIRMAN. Thank you, Mr. Griswold.

Mr. Van Nest?

STATEMENT OF ROBERT VAN NEST

Mr. VAN NEST. Thank you, Mr. Chairman, for inviting me.

I would ask leave to submit a written statement at a later time. I was a late invitee. I am happy to be able to be here and I would like to submit something in writing.

The CHAIRMAN. Without objection.

Mr. VAN NEST. I have a slightly different perspective than the other members of the panel. I am a California lawyer. I represented earlier this year a Stanford diver, a woman who challenged the NCAA drug testing program successfully in the California courts. The litigation is still on going, although the diver, whose name is Le Vant, will graduate from Stanford soon. We based our challenge to random, mandatory, monitored urine testing on the California Constitution which has an express privacy provision, and I would suggest to you, Mr. Chairman, and to Congress that the standard set up in California is a much more fair one to evaluate, as a basis——

The CHAIRMAN. The constitutional standard?

Mr. VAN NEST. The constitutional standard.

The CHAIRMAN. The California Constitution is different on this in this respect than the U.S. Constitution?

Mr. VAN NEST. It is only in this one respect. It has an express provision guaranteeing to the citizens the right of privacy and it requires, in evaluating invasions like that, that you look to some of the factors that you have been inquiring about: Is there a compelling need, number one, to perform——

The CHAIRMAN. You acknowledge there is a debate as to whether or not there is, in fact, the right of privacy guaranteed in the Constitution, the U.S. Constitution?

Mr. VAN NEST. I do not think so. There is a right of privacy guaranteed by the federal Constitution flowing primarily from the fourth amendment. It is more express in the California Constitution. It is direct and express.

The CHAIRMAN. We had a little disagreement during the confirmation hearings on that subject.

Mr. VAN NEST. Indeed.

The CHAIRMAN. I can assure you there is a disagreement. I happen to share your view, but there is a disagreement.

Mr. VAN NEST. I suspect most members of the panel share that view. There is no question that the right exists.

The NCAA program was declared unconstitutional for four reasons.

The CHAIRMAN. Again, declared unconstitutional by the California Supreme Court?

Mr. VAN NEST. The California Superior Court. The case has not been up on appeal.

One, the court found that monitored drug testing like the drug testing that most employers have implemented is degrading and humiliating. I frankly pooh-poohed the degrading and humiliating aspect, because like a lot of athletes I have been in locker rooms using public showers and the like. We had several football players, not shy types, from Stanford's team who were tested in the Gator Bowl, who testified that when asked to enter a room alone with a stranger whose job it is to watch you urinate, it is something that leaves a long and lasting impression. I think the court found the nature of the humiliation to the individual was an important factor in rendering the program unconstitutional, and I think it is something the Congress should not lose sight of.

Secondly, the NCAA program did not test performance. It does not test for reflexes, for coordination, for vision, for balance, for those sorts of things. It tests for drug traces. So in a very real sense, even when it is accurate, it punishes innocent people. It ignores guilty people. An athlete who attends a party and smokes marijuana on a Tuesday may test positive on a Saturday because marijuana remains in the system for 21 days, even though the marijuana is no longer affecting his or her ability to compete.

On the other hand, a student could use steroids all season long, take the benefit of whatever bulking up occurs, cease using the steroids a week or two before the Gator Bowl and test clean. Even when the testing is accurate, as I think the NCAA test generally is, it punishes innocent people and it ignores guilty people because it does not measure enhancement or impairment at the time of the athletic event.

The third factor that was important to the court was the absolute absence of any evidence, hard evidence of a compelling need. You have asked a number of questions of witnesses here as to what evidence there is, what documented evidence there is. When we asked the NCAA, we came up with the same thing—zero. They based their testing of 3,000 drugs, all 28 sports, on one study of 2,000 athletes which showed that alcohol was a far more serious problem than drug abuse among college students. To the extent drug abuse is a problem on college campuses, it is a bigger problem with students than with student athletes and, third, that the problem of drug abuse among athletes was limited to a rather small group, less than 5 percent of the many students competing in NCAA events.

So I would question with much skepticism the evidence which is primarily anecdotal offered by Mr. Willard or Mr. Evans concerning the serious nature of the problem.

Finally, as both yourself and as Senator Grassley have noted, exploration of alternatives is important. For 10 years, the NCAA paid lip service to drug education and drug counseling. They spent about $200,000 in the entire 10-year period. Now that drug testing is on the burner, they are spending a million dollars in year one to test.

We think, and Judge Stone agreed with us, that before you begin a program as invasive as these programs are, you should be required to exhaust less intrusive remedies, one of which is probable cause testing, another of which is aggressive, hard-hitting education and counselling, and I am not sure that that aggressive, hard-hitting counselling has occurred among Federal employees. It certainly has not occurred among college athletes.

I think you are going to see more reversals of drug testing programs, certainly in California and in other States, as more athletes and more employees take an aggressive posture and challenge the programs.

Thank you.

The **Chairman**. Thank you.

Let me start with you, Mr. Van Nest. Would probable cause be met in your opinion if several other athletes other than the one who was being tested testified prior to the event that they were with Sally or Harry last night and saw them snorting coke or saw them smoking marijuana? Would that be probable cause or do you mean by probable cause going up the diving board ladder wobbly and someone having to be behind you pushing?

Mr. **Van Nest**. I primarily mean the latter. I think the former might be probable cause if it is accompanied by other visible signs, and the notion that you cannot detect drug use is nonsense. There may be some circumstances in which it cannot be detected. That is primarily when the use is very small. Coaches and trainers and people who have occasion to observe athletes over the long haul can tell when an athlete is using steroids, can tell when an athlete is abusing cocaine, can tell when an athlete is abusing other substances.

The **Chairman**. We have some pretty lousy coaches then.

Mr. **Van Nest**. We have coaches who are afraid. We have coaches who are not coming forward. We have coaches for whom winning is more important than competition, and I think you are right, we have some coaches who are intimidated.

The **Chairman**. It is hard because admittedly they are the most celebrated, but most of the most celebrated cases recently where coaches of some extraordinary athletes have indicated they had no idea that so-and-so was using drugs, I find that, quite frankly, hard to believe, that someone could be strung out on coke as long as some of these folks have been.

Mr. **Van Nest**. It is hard to believe.

The **Chairman**. I do not know how Gooden got through a whole year without anybody, a coach, being able to look at him, as you say, or a trainer or anybody else.

Mr. **Van Nest**. As someone else commented, I understand there was some testimony from the LAPD perhaps or a comment about it at your earlier hearing that there are procedures in force in most States of this country by which the highway patrol attempts to detect drug use, drug abuse by visual signs, and it can be done.

I think implementing some kind of probable cause standard with trained examiners for athletic events, and for workplaces, is a much less intrusive way to proceed and probably much more reliable in terms of eradicating workplace incompetence and danger.

The **Chairman**. Would your view have changed if, in fact, there truly was a significant or serious safety issue related to it?

Mr. **Van Nest**. I think it would. The higher the safety danger and the more immediate it is to the risk to other people, I think the more serious you must be about testing. However, I still believe that there is virtually no field of endeavor today in which the evidence is so compelling and the alternative means so ineffective that probable cause testing is not good enough. I oppose any sort of random testing because I think probable cause testing is going to get the job done.

But certainly the stakes are higher where you are talking about airplane pilots, railroad engineers, than they are when you are talking about college divers.

The CHAIRMAN. Mr. Adler, drug abuse in the United States has, in fact, reached alarming proportions. We know that merely from the amount of dollar transactions that take place. I mean it is staggering, the amount. Literally the drug cartels made more in profits last year than the Fortune 500 companies combined, which is kind of interesting, and it is considered by most people to be the number one problem facing this country domestically.

There are estimates that drug abuse in America among American employees costs as much as $100 billion in lost productivity, health care, property damage and theft. How do you assure public safety and public confidence without some kind of testing program? Can we design testing programs to meet the constitutional and legal basis that is required under the law?

Mr. ADLER. If you are talking urinalysis testing, I think the question is really why would you need to, because again the issue is still whether the problem of an individual being affected by drugs in a way that presents a danger to the public is any different from him being affected by alcohol or the lack of enough sleep or simply performing poorly on the job.

The CHAIRMAN. Only because it is illegal. That is a start.

Mr. ADLER. Whether or not it should be legal is a separate issue. I think the fact that it is illegal is really the direct reason for the profitability of the drug trafficking and the criminal element involved.

I have heard other experts say that the problem has become more serious because the drugs themselves are more potent. Again, if the government were regulating it rather than criminalizing it, they would address that problem as well.

The CHAIRMAN. Also we would be killing lots of people.

Mr. ADLER. But the problem of illegality does not go to the question of what harm drug use presents to the public in terms of the transportation industry. Alcohol presents the same kind of harm.

The CHAIRMAN. I think it does. I think it does. I think it does in large part go to that. Obviously, there are certain things, there are certain drugs you cannot "take in moderation." You can drink in moderation. You can do other things in moderation that ultimately present a public nuisance, if not done in moderation, public danger, rather, but there are certain drugs—you cannot take crack in moderation. You take crack and you are cracked.

Mr. ADLER. But marijuana, in that respect, is no different from alcohol and that can be demonstrated by the fact that if you look at the number of people who are using, obviously that means there are a number of people in this room right now who are using and there are no evident signs that they are not capable of performing and functioning.

The CHAIRMAN. I would argue, by the way, that there are evident signs in the way in which—this is a discussion for another time—I would argue that there are evident signs in the slow and subtle decline of this nation in terms of its productivity, its ethic, its work habits and a whole range of other things. I happen to think that there are real signs of that. I think there are signs of it in terms of things ranging from teenage suicides to performance in school. I think there are direct correlations, but again that is another argument for another day.

I have tended, as you know, to come down on the side of strict interpretation and have only with great, great, great reservation and caution extended the ability of government to intrude anywhere.

Let me ask a question. Is there a distinction in your mind between pre- and post-employment testing?

Mr. ADLER. Yes, there is. Pre-employment testing has been found by most of the courts, without any serious examination, to be constitutional.

The CHAIRMAN. How about you, the ACLU?

Mr. ADLER. We believe, again, it is a constitutional problem because you have no reason to suspect an individual at that point either. When an individual comes to you applying for a job, you evaluate the person's resume, you do an interview, you do whatever kind of background check you want on the person and you make the decision. The courts have indicated that an individual who is already on the job does have a greater interest than an applicant. It is both a liberty and property interest involved in terms of any kind of action that is going to adversely affect the person's status in that job or a potential for promotion.

The CHAIRMAN. I have a minute to vote. Let me vote and come back and I will not keep you all very much longer, I promise.

[Short recess.]

The CHAIRMAN. Back on the record.

Mr. Griswold, would you elaborate a little bit for me and for the record on the reasonableness of a search as it relates to urinalysis. You indicated there could be such a plan or a system or a testing mechanism set up that would meet the test of reasonableness.

Mr. GRISWOLD. You mean in terms of the dignity business?

The CHAIRMAN. In terms of anything. The argument made by Mr. Adler, as I understand it, and Mr. Van Nest, is that without establishing probable cause there is not a circumstance under which, and correct me if I am wrong, gentlemen—there is not a circumstance under which demanding a urinalysis of an employee would be constitutionally sound.

Mr. ADLER. We would recognize, since it is not in the criminal context in terms of prosecution, that the standard may not be "probable cause" but it would at least require individualized suspicion that the person has engaged in the conduct you are trying to prove occurred.

The CHAIRMAN. Would you comment on that for me, Mr. Griswold?

Mr. GRISWOLD. Well, 75, 85 years ago, 80 years ago, the Supreme Court in *Jacobson* v. *Massachusetts* held that compulsory vaccination did not violate any constitutional provision. I suppose that would be due process, rather than search or seizure, but it is the same kind of personal violation. There are a number of lower court decisions upholding random drug testing such as for prison guards, military personnel. There is a decision of the fifth circuit just within the month upholding the testing of Customs agents who are applying for promotion and a case last year involving jockeys.

I put the whole question of athletes both amateur and professional, and that would include jockeys, very low down on the list. When there is a question of protecting the public against appreciable risk at relatively low cost, the individual involved in connection with employment, I find it fairly easy to come to the conclusion that a requirement of random drug testing is "reasonable."

Now, reasonable is one of those words which you do not put in a computer and it comes out here or it comes out there and that is it. It is a question of judgment.

The CHAIRMAN. Would it matter to anyone on the panel if the judgment were made as a matter of national policy that because drug abuse is so prevalent in America that there would be and could be random testing in the workplace at the federal level or at any level, private or public employment, but there could be no action taken against the employee if, in fact, they were found to have consumed or been a consumer of drugs? I am seriously asking the question.

Mr. ADLER. I would ask why they are going to do it if no action is being taken.

The CHAIRMAN. It is a very serious action. One of the things you might want to do is you might want to make it clear to the public because there is overwhelming evidence that people deny the existence of the problem. You might want to help society identify those people who are, in fact, consumers of drugs to be able to bring them out into a position where you can begin to help them, to fashion programs to help with rehabilitation, to begin the process.

Look, I do not see how we are going to make any progress in this country unless we begin to change attitudes, and I do not see how we are going to make any progress in this country unless we change attitudes about drugs. We are too permissive about drugs as a society. We have to begin to change attitudes.

I want to ask a constitutional question first, not whether I am right or wrong about changing attitudes. Would there be a constitutional violation if, in fact, testing was demanded without any reasonable suspicion or probable cause either for everyone from athletes to employees at the National Security Agency, if, in fact, there could be no action taken based on that test alone, for those confirmatory tests alone?

Mr. VAN NEST. I think there would be, Mr. Chairman, for this reason, that the Constitution requires that taking a step like this, which is an invasion to some extent of privacy, that there be a reasonable relation between what you are doing and the goals you are attempting to accomplish, and if you implement that sort of a program you are conceding, number one, that the only possible thing you could be doing is deterrence. It has a deterrent effect only. You are not going to be weeding out individuals from the workforce who are actually performing badly. You are not going to be looking really at performance at all. You are hoping with this sort of blunderbuss approach that you will deter some people and you may deter some people.

The CHAIRMAN. Not only deter, but identify and also rehabilitate. All the psychologists and psychiatrists point out that one of the great problems that drug abusers have is the unwillingness or inability to acknowledge the existence of their problem, number one;

and, number two, the fear that there will be retribution if they attempt to deal with their problem, and they know they have a problem. So it is not just merely to deter, it would be to help.

Mr. VAN NEST. Deter and help, but I guess my point is to the extent that it is not directed specifically at performance, I think such a broad approach has a lesser chance of passing constitutional muster than a more specific approach which says we are going to try to identify people who are lousing up and who are performance risks and who are risks to health and safety and pull them out of the dangerous jobs, and I think your hypothetical approach is such a broad one that it would have less chance of passing muster.

Mr. EVANS. Mr. Chairman, I agree that such an approach would not be constitutional because it leaves out other factors that are taken into account in looking at the balancing test between the public and the private interests. With the fourth amendment, a citizen gets the most protection when he or she is the subject of a criminal investigation and any evidence or testimony that is going to be gathered as a result of a search is going to be used for criminal prosecution. So at this end of the fourth amendment we require probable cause and we would probably require hard evidence before we do anything about it.

The CHAIRMAN. Let me ask you this question. Let us assume the DuPont Company, for example, is experimenting with a substance that would in fact interfere with the ability of a drug to have an impact upon or have the stimulant impact or depressant impact upon a citizen that in fact it is designed to have. Let us assume the chemical industry comes up with a vaccination, if you will. Would it be unreasonable or unlawful to require all people in this country to be vaccinated against being able to be affected by cocaine?

Mr. ADLER. I believe it would, because once again—and I am not trying to condone the use of such substances—but you have to realize by the number of people we are talking about, this is a conscious choice by the vast majority who are not addicted to the substance. They view it recreationally the way people in this country view alcohol. The only difference is that alcohol is legal and marijuana and cocaine are illegal.

The CHAIRMAN. That is a big difference.

Mr. ADLER. It is, but when you talk about rehabilitation, rehabilitation for those people is telling them you cannot have a job if you continue to do this. It is quite different from rehabilitation for someone who has a medical problem with a drug.

The CHAIRMAN. There is a direct correlation that unless we go the route you are suggesting of legalizing the drug, there is a direct correlation between your ability to walk out of your apartment and get into your car safely and the consumption of cocaine in this town.

Mr. ADLER. I guess the problem I have is that if you look at the number of people who are said to use cocaine regularly and yet you hear the employers and the Justice Department say we do not see the signs too readily, we cannot expect that such widespread use is going to lead to people driving all over the streets, or falling down out of their houses. That simply does not exist because, unfortunately, people can use these drugs responsibly, in a sense, at least they can use them without showing any outward effect that manifests itself in their daily lives.

The CHAIRMAN. Would it be unconstitutional if the Dupont Company comes up with an Interferon that prevents a heroin addict from being able to get the benefit from the heroin he or she is ingesting or shooting into their veins?

Mr. GRISWOLD. That is a hypothetical which is——

The CHAIRMAN. Which is not too far off.

Mr. GRISWOLD. That is hard to contemplate, but if it were clear that it was as good a protection as a vaccination was against small pox and not that it would help in two-thirds of the cases or something like that, I would think that it was clearly covered by the decision of long ago which was a very useful one in this country.

Mr. EVANS. Mr. Chairman, I would like to complete my idea on this. You are leaving out people who have a reasonable expectation of privacy which the law considers in making fourth amendment decisions. Just using drug testing only to provide rehabilitation when weighed against a citizen's reasonable expectation of privacy does not meet the constitutional test. However, the courts now are looking at drug testing from the point of view of the "administrative search doctrine" where if a search is implemented for a noncriminal purpose, i.e., for some use in employment, that the same standard does not apply that applies with a criminal investigation.

Mr. ADLER. But that is a radical change in the law, because that doctrine as it appears in the three court of appeals cases has only applied to searches of commercial premises. No one had ever contemplated applying it to the searches of a private person, which the court has held to a much more sanctified privacy standard than searching a business location.

Mr. EVANS. That is not an accurate portrayal. There are plenty of exceptions within the administrative search doctrine, for example, where a welfare worker can go in and search a home without obtaining a warrant to ascertain certain facts about the welfare recipient. We have personal searches in airports. Cars impounded as a result of a criminal offense, can be searched without obtaining a search warrant. The administrative search doctrine is now being applied to drug testing in employment to enforce legitimate work rules.

If we put every action of a public employer to the same standards that apply to a criminal investigation, you are going to immobilize employers. That means every time they ask an employee a question the employer has got to submit it to criminal investigation standards? I think the result would be ridiculous.

Mr. ADLER. I still submit the examples you gave did not involve searches of a person anywhere near as intrusive in terms of individual dignity as this kind of test.

The CHAIRMAN. Airport searches.

Mr. ADLER. No. Airport search is a very different thing, for two reasons. It gives you instantaneously the information that the government is entitled to find out, which is whether or not you are carrying a weapon which would jeopardize people on an airplane. There is a minimum of intrusiveness in the sense that you do not have to disrobe, and you provide no other information.

The CHAIRMAN. In certain circumstances you have to disrobe. How about Customs searches?

Mr. ADLER. I think they have always been problematic in terms of the fourth amendment. That is why they have been confined to the border.

The CHAIRMAN. You talk about intrusive.

Mr. ADLER. They have been confined to the situation of people crossing the national border.

The CHAIRMAN. How will that, more or less, impact upon the safety of American citizens, whether or not someone is a regular consumer of a dangerous drug?

Mr. ADLER. Again, the test you are discussing here is much more personal because of the medical information an individual is forced to disclose, first, by saying whether or not he is taking any medications which might throw off the results of the test and, second, because urinalysis itself can discover a great deal about your medical condition, including whether a woman is pregnant, and whether an individual is a diabetic or epileptic. It is more intrusive.

The CHAIRMAN. The information is not in terms of how degrading it is. Customs agents have rubber gloves, you know, of course, and I cannot think of anything more intrusive than that.

Mr. ADLER. I am not saying that we agree with the scope of permissible border searches. I am saying that is a fact of life.

The CHAIRMAN. What I am trying to identify is where we cross the constitutional line and if we are talking about searches that are degrading and intrusive, I can think of searches that are permissible now that are more degrading and more intrusive than a urinalysis by a long shot.

Mr. GRISWOLD. It was my duty when I was Solicitor General to defend some quite degrading Customs searches, and I did it successfully.

Mr. VAN NEST. Not many, though, Mr. Chairman, are strictly random. Not many of those more degrading searches you are thinking about are done on a regular basis randomly. Most are conducted on some sort of reasonable suspicion.

The CHAIRMAN. One of the things I am very concerned about is the invasion of privacy of an employee, federal or otherwise. But I find I am in a bit of a dilemma. The very randomness, strangely enough, protects the thing I most worry about in a strange way. I most worry about this notion of establishing probable cause or having reasonable suspicion. I can picture the courts making a judgment, yes, that it is reasonable suspicion because you look funny, you walk in and you bumped into the water cooler and I am just waiting for you because you had a bad day, you have a headache, and I am just waiting for you to sit in that swivel chair that sometimes breaks and falls down, say, ah-huh, that is it. I am much more concerned about that quite frankly, than I am about the randomness of the test.

If you walk in and say every seventh person through the door, well, I will take my chances on that before I take my chances on an employer, Federal or otherwise, making a judgment on whether or not I have crossed the line or met the test of reasonable suspicion without that being much more clearly defined than anything I have even remotely heard here.

So ironically my instinct is against this legislation, but the only thing that brings me closer to thinking there may be a way to deal with this problem is the randomness of it, the thing that bother you all the most.

Mr. GRISWOLD. Not me.

The CHAIRMAN. I am sorry, your colleagues at the other end of the table.

Mr. GRISWOLD. I think the randomness is important and desirable and does help to bring the ultimate appropriate conclusion to the point that it is reasonable, that being a question of judgment and that is a factor which points towards reasonableness.

Mr. VAN NEST. Mr. Chairman, trust your instincts on this because if you do not——

The CHAIRMAN. You are beginning to lose me.

Mr. VAN NEST. If you do not, the situation you will have is a much, much, much greater invasion of the privacy of far more people than if you stick with the probable cause standard. What we are trying to ferret out, I think, in these workplace rules is people whose performance is jeopardizing the lives and safety of other people. A random test procedure is going to just of necessity call, as it has in the Executive order, for testing of far greater numbers. Far greater numbers of citizens are going to be subjected to it.

The CHAIRMAN. What if they randomly test one in every million?

Mr. VAN NEST. Realistically that is not what is going to happen. I do not think it is what is happening.

The CHAIRMAN. I have never, not because I am better or worse, but I have never used any drugs, I mean other than a prescribed drug by a physician. But I want to tell you something: If I did and I knew there was one in a million chance my name would come up on that little clicker that day or one in a thousand or one in a hundred, it surely would make me think about it. I do not understand how it wouldn't, unless I was already so strung out I could not do anything about it, and then I would hope the hell I got caught and got some help probably.

Mr. ADLER. Again, I would strongly agree with your original comment that deterrence is a valuable thing, but in our society, most of our liberties, most of our freedoms are protected by procedure and it is precisely the fact that we reject certain means of accomplishing certain laudable objectives, or deterring unacceptable conduct, because those means are basically repugnant to our values.

In terms of personal privacy, not all people are or should be treated the same. We know, for example, someone in your particular field of employment tends to enjoy less personal privacy than someone who is not in that field, and the courts have said that a reasonable expectation of personal privacy is subjective so long as society is willing to say that in those facts and circumstances that subjective expectation of privacy is reasonable.

The CHAIRMAN. Except when you end up having a circumstance existing in society that is clearly so overwhelmingly detrimental to society as a whole, and I have become so convinced—I am so convinced about the extent, pervasiveness, danger, both physical and economic, from the consumption of drugs to the extent they have reached in this country that I think it is an overwhelming problem. It is at least as dangerous to American citizens and to society as whether or not people are licensed drivers, whether or not people, in fact, are vaccinated against some dread disease.

Mr. ADLER. If it is as dangerous, for example, as some people in this country believe the problem of handguns is, would anyone seriously propose that people could be searched without probable cause to determine whether they were illegally in possession of firearms?

Mr. GRISWOLD. They do it every time they go through an airport.

Mr. ADLER. Only in that very limited context. If you do not fly in an airplane, you are not searched.

The CHAIRMAN. How about if you fly an airplane?

Mr. ADLER. As someone who does fly occasionally, I would feel much more comfortable if I knew that the pilot was being observed by someone who is trained to understand drug and alcohol abuse, familiar with the pilot, knew him, saw him for a few minutes before he left, rather than having him taking urinalyses.

The CHAIRMAN. Would you share that view clearly where safety is an issue, assuming it was proven scientifically you could test for the presence of a drug in the system by a lock of hair? Would you object then?

Mr. ADLER. It is less intrusive in terms of the means. In terms of principle that I have a right to be left alone as long as I am not doing anything that is wrong——

The CHAIRMAN. Where do we draw the line between whether or not I as a trained physician and a trained scientist look in your eyes and watch your mood and habits while you are in the lounge prior to getting in the plane and, say, give me a lock of your hair? It is intrusive. I am watching. I am studying you.

Mr. EVANS. I urge you to trust your intellect instead of your instinct, as I hope any member of Congress would do.

The CHAIRMAN. It depends on your intellect. Some should trust it more than others.

Mr. EVANS. I am aware you have a very strong intellect.

The CHAIRMAN. Where would you like to be Ambassador? [Laughter.]

Mr. EVANS. Some place warm where I would not have a lot of work to do.

But I think you are onto something here. I think also that random testing—and I really deplore the use of the word "random," I would prefer the term "neutral selection process"—is also less divisive. It does not pit group against group. Everybody is liable.

I think if we look at people's reasonable expectations of privacy, there are jobs where personal privacy expectations are lowered. I am an attorney. The New Jersey Supreme Court has decided an attorney in New Jersey is an attorney 24 hours a day. If I do something unethical in a non-legal business, I may be brought up for ethical charges in New Jersey under our attorney ethics. However, I think members of the public who have normal privacy rights and who are going to be asked to take drug tests as some kind of therapeutic program on a mass basis would have a right to a reasonable expectation of privacy. They are not willingly entering into something where they are giving up some of their privacy. I think that is the way the law is going to hold and has held so far. With jobs such as prison guards, and jockeys and Customs officials, they freely contract to take on those job responsibilities. No one has a right to be a Customs official. No one has a right to be a jockey or a prison guard. You enter of your own free will and you take some of the risks and some of the responsibilities along with it.

Mr. ADLER. Senator, if I may say, that is the classic slippery slope situation. When he says in one verse he is equating jockeys, prison guards, airline pilots, it should be clear that those three jobs are not similar in any real way. No, it is because for each occupation, the employer would like to believe their employees should be trustworthy, and capable of confidence.

The CHAIRMAN. Did you not acknowledge that there is a question of what the reasonable expectation of privacy is on a job that you seek, what that reasonable expectation of privacy is that goes along with that?

Mr. ADLER. I guess what I am saying is I for one did not understand how the court could say that jockeys have such little expectation of privacy given what it is that they do. What they do is not of crucial significance to society and what they do——

The CHAIRMAN. It sure as hell is to the jockey sitting next to you. If you fall off the horse and you do not know much about horse racing.

Mr. ADLER. That is if you believe the *Shoemaker* case. The district court specifically found that the New Jersey Racing Commission presented absolutely no evidence linking any drug use with any accident.

Mr. EVANS. If I can illuminate you on that case I like slippery slopes because it is the fastest way to get to the bottom of something.

The CHAIRMAN. You just lost your ambassadorship. [Laughter.]

Mr. EVANS. I am sorry, I am a lawyer not a humorist.

The bottom line in this, and the connection in all those cases, is public safety and public interest. The way the court reasoned it in the New Jersey jockey case was that New Jersey has a serious financial interest in the integrity of the racing profession in our State, plus being a jockey is very dangerous. One jockey can fall off a horse and injure another jockey or trip the horse behind him, and it is these concerns, not any evidence of drug abuse in the jockeys that gave sufficient public interest to outweigh the privacy concern.

The CHAIRMAN. Would either of you like to make a closing statement?

Mr. GRISWOLD. It seems to me that the appropriate thing for the Congress to do is to pick one or more clear safety related situations and devise a carefully constructed statute and put it into effect, and then we can learn a great deal about whether there really is an interference with people, whether it does any good, and I think that if Congress would proceed along that line it could not be properly criticized for doing anything inappropriate, because if it is clearly safety related and is carefully devised, in my view the Supreme Court is not going to hold it involves an unreasonable search or seizure.

Mr. VAN NEST. Let us start in that vein with probable cause. Why start at the far end? If we start with the narrowest and we feel our way along, we are going to have a more valid program in the end.

The **Chairman**. I have 30 seconds to vote. I thank you all.

I really appreciate the inconvenience you were willing to go through.

The hearing is adjourned.

[Whereupon, at 1:12 p.m., the committee was adjourned, subject to call of the Chair.]

APPENDIX

WRITTEN STATEMENT OF THE
AIR TRANSPORT ASSOCIATION OF AMERICA

HEARING ON DRUG TESTING
APRIL 9, 1987

THE AIR TRANSPORT ASSOCIATION OF AMERICA (ATA) APPRECIATES THE OPPORTUNITY TO PARTICIPATE IN THIS COMMITTEE'S EXAMINATION OF THE ISSUE OF DRUG TESTING. WE HAVE PREPARED THIS STATEMENT TO PRESENT OUR VIEWS CONCERNING DRUG AND ALCOHOL TESTING IN THE COMMERCIAL AIRLINE INDUSTRY. ATA REPRESENTS THE INTERESTS OF U.S. SCHEDULED AIRLINES, BOTH PASSENGER AND CARGO CARRIERS. ATA MEMBERS ACCOUNT FOR APPROXIMATELY 96 PERCENT OF THE REVENUE PASSENGER MILES, AND AN EVEN GREATER PERCENTAGE OF THE FREIGHT MILES FLOWN BY THE SCHEDULED AIRLINES OF THIS COUNTRY. IN 1986, U.S. SCHEDULED AIRLINES EMPLOYED MORE THAN 412,000 PEOPLE.

WE ARE VERY PLEASED THAT THIS COMMITTEE HAS TURNED ITS ATTENTION TO THIS VITALLY IMPORTANT, ALBEIT DIFFICULT AND COMPLEX, ISSUE. WE HOPE THAT THIS COMMITTEE CAN SUPPORT A FEDERAL AIR REGULATION WHICH GIVES AIRLINE EMPLOYERS THE TOOLS THEY NEED TO ENFORCE COMPANY SAFETY RULES, BUT WHICH AT THE SAME TIME ADEQUATELY PROTECTS THE INTERESTS OF EMPLOYEES IN THEIR PRIVACY AND IN THEIR JOBS. WE FIRMLY BELIEVE THAT SUCH A REGULATION CAN BE PROMULGATED BY THE FEDERAL AVIATION ADMINISTRATION (FAA).

OUR MEMBER AIRLINES HAVE BEEN CONCERNED FOR SOME TIME ABOUT THE SPREADING DRUG PROBLEM IN OUR SOCIETY. NEARLY TWO YEARS AGO, OUR MEMBERS--AT THE HIGHEST EXECUTIVE LEVEL--BEGAN DISCUSSING THIS PROBLEM AS IT AFFECTS COMMERCIAL AVIATION, AND WHAT COULD BE DONE TO ACHIEVE A DRUG-FREE WORK FORCE. THOSE DISCUSSIONS LED TO MEETINGS WITH THE ADMINISTRATOR OF THE FEDERAL RAILROAD ADMINISTRATION (FRA) AND HIS SENIOR STAFF ABOUT THE FRA'S DRUG AND ALCOHOL RULES; WITH PETER BENSINGER, FORMER HEAD OF THE DRUG ENFORCEMENT ADMINISTRATION AND NOW A CONSULTANT IN THIS FIELD; AND WITH MANY OTHER SOURCES FROM DIFFERENT INDUSTRIES--ALL WITH A VIEW TOWARD DEVELOPING A COMPREHENSIVE REGU-

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LATORY PROPOSAL DESIGNED TO PROMOTE A DRUG-FREE WORK FORCE IN COMMERCIAL AVIATION. BY THE SPRING OF 1986, WE HAD CONSTRUCTED THE OUTLINE OF A DRAFT REGULATION WHICH WE BELIEVE WILL ENHANCE AVIATION SAFETY. A COPY OF OUR DRAFT PROPOSAL IS ATTACHED TO THIS PREPARED STATEMENT AS EXHIBIT 1.

ONCE WE HAD DEVELOPED AN OUTLINE, WE FELT THAT IT WAS IMPORTANT TO DISCUSS THIS MATTER WITH UNION REPRESENTATIVES. WE SPENT SEVERAL HOURS DISCUSSING OUR PROPOSAL WITH THE AIR LINE PILOTS ASSOCIATION (ALPA), AND WE ALSO BRIEFED THE ASSOCIATION OF FLIGHT ATTENDANTS AND THE INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE ENGINEERS. MUCH TO ALPA'S CREDIT, ALPA UNDERTOOK ITS OWN STUDY OF THIS PROBLEM AND OF POSSIBLE SOLUTIONS.

WE BELIEVE THAT OUR REGULATORY PROPOSAL FAIRLY BALANCES: (1) THE PUBLIC DEMAND FOR A DRUG/ALCOHOL FREE AVIATION WORK FORCE AGAINST THE CONCERNS OF AIRLINE EMPLOYEES TO BE FREE FROM EXCESSIVE, EMBARASSING INVASIONS OF PRIVACY, AND (2) THE CONCERNS OF AIR CARRIERS THAT THIS MATTER BE ADDRESSED IN A COST-EFFECTIVE MANNER WITHOUT UNNECESSARY GOVERNMENTAL INTRUSION AND REGULATION.

THE ATA PROPOSAL WOULD REQUIRE EACH PART 121 AND PART 135 AIR CARRIER TO DEVELOP A COMPREHENSIVE WRITTEN PROGRAM DESIGNED TO PROMOTE A DRUG/ALCOHOL FREE WORK FORCE. COVERED EMPLOYEES WOULD INCLUDE CERTIFICATED AND NON-CERTIFICATED CREWMEMBERS, MECHANICS, AND ANY OTHER EMPLOYEE WHOSE DUTIES AFFECT OR COULD AFFECT THE SAFETY OF AIRCRAFT OPERATIONS. AIR CARRIERS WOULD FILE THEIR PROGRAMS WITH THE FAA. THE FAA WOULD HAVE THE RESPONSIBILITY OF ENSURING THAT EACH PROGRAM CONTAINS CERTAIN MANDATORY ELEMENTS. IF THE FAA DOES NOT DISAPPROVE A SUBMITTED PROGRAM, THAT PROGRAM WOULD BE DEEMED TO BE ACCEPTED.

AS NOTED, CARRIER PROGRAMS WOULD BE REQUIRED TO INCORPORATE CERTAIN MANDATORY ELEMENTS. THESE ELEMENTS ARE: (A) PRE-EMPLOYMENT SCREENING, (B) POST-ACCIDENT AND POST-"SAFETY INCIDENT" TESTING OF EMPLOYEES, (C) TESTING OF EMPLOYEES ON A "REASONABLE SUSPICION" BASIS WHERE SUCH SUSPICION CAN BE PARTICULARIZED AND REASONABLY ARTICULATED, AND (D) NOT LESS THAN ONE OPPORTUNITY FOR REHABILITATION FOR EMPLOYEES WHO VOLUNTAR-

ILY ADMIT TO HAVING A DRUG OR ALCOHOL PROBLEM AND WHO ARE NOT ALREADY IN A JOB JEOPARDY STATUS. EMPLOYEES WHOSE DRUG OR ALCOHOL USE IS DISCOVERED BY TESTING, AND EMPLOYEES WHO HAVE VIOLATED OTHER COMPANY RULES AND WHO ARE IN A JOB JEOPARDY STATUS, WOULD NOT BE ENTITLED TO VOLUNTEER FOR A REHABILITATION PROGRAM. THE QUESTION OF ELIGIBILITY FOR REHABILITATION IS DISCUSSED IN MORE DETAIL BELOW.

A VERY IMPORTANT ASPECT OF OUR PROPOSAL IS THAT ANY CONFLICTING STATE OR LOCAL LAW WOULD BE PREEMPTED. WE FIRMLY BELIEVE THAT THERE MUST BE A SINGLE, NATIONAL REGULATION WITH RESPECT TO THE CONTROL OF DRUGS AND ALCOHOL IN COMMERCIAL AVIATION. CURRENTLY, THERE ARE AT LEAST 17 STATES THAT ARE CONSIDERING LEGISLATION ON THIS TOPIC. AIRLINES CANNOT ATTEMPT TO DEAL WITH EMPLOYEE DRUG AND ALCOHOL USE IF THEY MUST SATISFY VARYING REQUIREMENTS IMPOSED BY JURISDICTIONS WHICH HAVE DIFFERING VIEWS ON THE RIGHTS OF EMPLOYERS TO TEST THEIR EMPLOYEES. FEDERAL PREEMPTION IS ABSOLUTELY REQUIRED.

THE ATA DRAFT PROPOSAL DID NOT ADDRESS THE QUESTION OF RANDOM TESTING, OR THE FREQUENCY OF TESTING. AT THE TIME OUR PROPOSAL WAS DEVELOPED, IT WAS THOUGHT THAT RANDOM TESTING WAS AN ISSUE WHICH SHOULD BE LEFT UP TO THE INDIVIDUAL DISCRETION OF EACH CARRIER. HOWEVER, IN LIGHT OF THE CONSIDERABLE CONGRESSIONAL INTEREST IN LEGISLATING RANDOM TESTING, WE HAVE HAD TO RE-EVALUATE OUR POSITION.

IF CONGRESS DOES PASS LEGISLATION WHICH CONTAINS A PROVISION FOR RANDOM DRUG TESTING, THEN ATA BELIEVES THAT RANDOM TESTING SHOULD BE MADE MANDATORY FOR EMPLOYEES IN SAFETY-RELATED POSITIONS. UNLESS RANDOM DRUG TESTING IS MANDATED, ITS DETERRENT EFFECT WILL NOT BE FULLY REALIZED. MANY OF OUR CARRIERS BELIEVE THAT A RANDOM TESTING PROGRAM, PROPERLY CONSTRUCTED AND APPLIED, IS THE MOST EFFECTIVE DETERRENT TO ILLICIT DRUG USE AND THAT IT IS THE MOST EFFECTIVE MEANS OF MOTIVATING EMPLOYEES WITH PROBLEMS TO SEEK THE HELP THEY NEED. THIS IS ESPECIALLY TRUE IF DISCOVERY BY TESTING MAY LEAD TO IMMEDIATE DISCHARGE.

OUR PROPOSAL ALSO DOES NOT ADDRESS THE ISSUE OF SANCTIONS

FOR RULE VIOLATIONS. OUR MEMBERS BELIEVE THAT THE IMPOSITION OF SANCTIONS IS A MATTER WHICH IS BEST LEFT TO THE COMPLETE DISCRETION OF EACH CARRIER. BECAUSE WE ARE DEALING WITH PEOPLE, NOT EQUIPMENT, AND THE TOTAL UNIVERSE OF HUMAN PROBLEMS AND RELATIONS, SANCTIONS CAN BE IMPOSED ONLY ON A CASE BY CASE BASIS WITHIN THE FRAMEWORK OF ESTABLISHED COMPANY POLICY. HOWEVER, AT A MINIMUM, CARRIERS MUST HAVE THE ABILITY TO DISCHARGE EMPLOYEES WHO DISREGARD SAFETY RULES AND WHOSE CONTINUED EMPLOYMENT WOULD JEOPARDIZE SAFETY.

A SIGNIFICANT ASPECT OF THE ATA DRAFT REGULATORY PROPOSAL IS THAT IT ALLOWS FOR DIFFERENCES AMONG AIR CARRIERS. THIS IS NOT AN ISSUE WHICH CAN BE TREATED LIKE A TYPICAL OPERATING OR MAINTENANCE SAFETY REGULATION WHERE UNIFORMITY IS THE BEST WAY TO ENSURE COMPLIANCE WITH SAFETY REQUIREMENTS. BECAUSE OF THE MANY DIFFERENCES BETWEEN CARRIERS, SUCH AS SIZE, LOCATION, INTERNAL MANAGEMENT STRUCTURE, LABOR RELATIONS, AND HISTORICAL COMPANY POLICIES AND PHILOSOPHIES, EXTENSIVE REGULATIONS WITH UNIFORM DETAILED REQUIREMENTS WOULD SIMPLY BE INAPPROPRIATE. ATA'S APPROACH, THAT OF ALLOWING EACH AIR CARRIER TO CONSTRUCT ITS OWN PROGRAM WITH CERTAIN MINIMAL, MANDATORY ELEMENTS, WILL ALLOW CARRIERS WITH COMPLETELY DIFFERENT CIRCUMSTANCES TO ADDRESS THIS PROBLEM IN A MANNER CONSISTENT WITH THOSE CIRCUMSTANCES, YET UNIFORMLY ENHANCE AVIATION SAFETY.

BEFORE CLOSING, WE WOULD LIKE TO DISCUSS THE QUESTION OF WHEN REHABILITATION SHOULD BE OFFERED BY DESCRIBING A CASE CURRENTLY WENDING ITS WAY THROUGH THE COURTS.

IN 1982, A FIRST OFFICER OF A MAJOR U.S. AIRLINE FLEW FROM LAS VEGAS TO SAN FRANCISCO WHILE LEGALLY INTOXICATED. IN VIOLATION OF THE COMPANY'S RULE WHICH PROHIBITS ANY CONSUMPTION OF ALCOHOL WITHIN 24 HOURS BEFORE A FLIGHT, THIS INDIVIDUAL CONSUMED A CONSIDERABLE AMOUNT OF ALCOHOL. UPON LANDING, HE WAS GIVEN A BLOOD ALCOHOL TEST WHICH ESTABLISHED HIS INTOXICATION. THE INDIVIDUAL WAS DISCHARGED IN ACCORDANCE WITH COMPANY POLICY.

THE INDIVIDUAL ENTERED AN ALCOHOL REHABILITATION PROGRAM AND WAS SUBSEQUENTLY ISSUED A SPECIAL MEDICAL CERTIFICATE BY THE FAA WHICH PERMITTED HIM TO FLY IF MONITORED BY BOTH THE AIRLINE AND ALPA. ON THIS BASIS, THE INDIVIDUAL SOUGHT, AND

OBTAINED, AN ARBITRATION AWARD WHICH GRANTED HIM REINSTATEMENT. THE ARBITRATION BOARD FOUND THAT THE INDIVIDUAL'S PRIOR WORK HISTORY, ALCOHOLISM AND REHABILITATION JUSTIFIED A REDUCTION OF THE DISCHARGE PENALTY.

ON THE AIRLINE'S COMPLAINT, THE U.S. DISTRICT COURT VACATED THE ARBITRATION AWARD. THE COURT HELD THAT THE ARBITRATOR LACKED JURISDICTION OVER A DISCHARGE BASED ON A VIOLATION OF A SAFETY RULE (THE 24 HOUR RULE), AND THAT PUBLIC POLICY REQUIRED REVERSAL BECAUSE THE AIRLINE IS STATUTORILY OBLIGATED TO PERFORM ITS SERVICES WITH THE HIGHEST POSSIBLE DEGREE OF SAFETY.

THE U.S. COURT OF APPEALS REVERSED, FINDING THAT A DISCHARGE FOR VIOLATION OF A COMPANY SAFETY RULE IS SUBJECT TO ARBITRATION, AND THAT THE FAA--BY ISSUING A CONDITIONAL CERTIFICATE TO THE PILOT--HAD DETERMINED THAT PUBLIC POLICY (SAFETY) WOULD NOT SUFFER BY ALLOWING THE PILOT TO FLY. THE AIRLINE HAS FILED A PETITION FOR A WRIT OF CERTIORARI AT THE U.S. SUPREME COURT.

THE POINT OF DESCRIBING THIS CASE IS TO ILLUSTRATE THAT A FUNDAMENTAL CONFLICT OFTEN EXISTS BETWEEN SAFETY AND REHABILITATION. PUBLIC POLICY, AS REFLECTED IN THE STATUTORY REQUIREMENT THAT AIRLINES OPERATE WITH THE HIGHEST POSSIBLE DEGREE OF SAFETY, COULD DICTATE THAT FEW REHABILITATED EMPLOYEES BE ENTRUSTED WITH THE LIVES OF THE FLYING PUBLIC. ON THE OTHER HAND, THE GOAL OF REHABILITATION IS TO RETURN EMPLOYEES TO THEIR PRIOR POSITIONS AS PRODUCTIVE MEMBERS OF SOCIETY. WE BELIEVE THAT WHEN THE INTERESTS OF PUBLIC SAFETY CONFLICT WITH THE INTERESTS OF INDIVIDUAL EMPLOYEES, THE BALANCE TIPS IN FAVOR OF PUBLIC SAFETY.

REHABILITATION MUST NOT BE VIEWED AS CARTE BLANCHE FOR EMPLOYEES WHO HAVE VIOLATED COMPANY SAFETY RULES TO RESUME PRIOR DUTIES. THE PROMOTION OF SAFETY REQUIRES THAT CARRIERS HAVE THE ABILITY TO ENFORCE THEIR RULES SO THAT STANDARDS REMAIN AS HIGH AS POSSIBLE. UNFORTUNATELY, DECISIONS SUCH AS THE ONE JUST DESCRIBED UNDERCUT, AND EVEN PREVENT, CARRIERS FROM OPERATING WITH THE HIGHEST DEGREE OF SAFETY, THEREBY CREATING SERIOUS PROBLEMS FOR THE AIRLINES.

THERE MUST BE AN EASILY IDENTIFIABLE STANDARD--A CLEAR LINE--RECOGNIZABLE BY BOTH MANAGEMENT AND LABOR. SUCH A STANDARD SHOULD SERVE TWO PURPOSES. FIRST, IT SHOULD ENSURE MANAGEMENT'S ABILITY TO SET AND MAINTAIN THE HIGHEST POSSIBLE SAFETY STANDARDS TO MEET ITS STATUTORY OBLIGATIONS. SECOND, SUCH A STANDARD SHOULD ENCOURAGE THOSE WHO HAVE BECOME DRUG OR ALCOHOL DEPENDENT--OR SIMPLY USERS--TO SEEK THE HELP THEY NEED BEFORE THEY CROSS THE LINE THAT CAN RUIN THEIR CAREERS. FOR EMPLOYEES WITH SUBSTANCE ABUSE PROBLEMS, THERE IS NO INCENTIVE TO SEEK HELP UNLESS THERE IS A SERIOUS THREAT TO JOB SECURITY.

WHAT SHOULD THAT STANDARD BE? ATA BELIEVES THAT THE CRITICAL FACTOR TO FOCUS ON IS THE JUDGMENT OF THE EMPLOYEE. IF AN EMPLOYEE SEEKS HELP BEFORE VIOLATING A COMPANY SAFETY RULE OR BEFORE BEING IDENTIFIED BY MEANS OF A COMPANY-REQUIRED DRUG OR ALCOHOL TEST, THEN THAT EMPLOYEE--EVEN THOUGH POSSIBLY SUFFERING FROM A SERIOUS DISEASE--HAS SHOWN THE TYPE OF JUDGMENT WHICH SHOULD BE REWARDED BY THE CONTINUED CONFIDENCE OF THE CARRIER. ONLY IN THESE CASES SHOULD REHABILITATION BE MADE AVAILABLE.

ON THE OTHER HAND, IF AN EMPLOYEE IS WILLING TO VIOLATE A SAFETY RULE OR AN FAA REGULATION, THEREBY PLACING THE LIVES OF THE PUBLIC AT RISK, THEN HE HAS CROSSED THE LINE BEYOND WHICH HIS JUDGMENT SHOULD NOT, AND CANNOT BE TRUSTED. IN THESE CASES, REHABILITATION SHOULD NOT BE AVAILABLE AS A MEANS OF RETURNING TO WORK. THIS, WE BELIEVE, IS A STANDARD WHICH WILL PROMOTE BOTH SAFETY AND REHABILITATION.

WE WILL BE HAPPY TO ANSWER ANY QUESTIONS YOU MIGHT HAVE.

RESPECTFULLY SUBMITTED,

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STATEMENT FOR THE RECORD

BY

THE NATIONAL FEDERATION OF FEDERAL EMPLOYEES

Mr. Chairman and Committee Members:

I am pleased to submit for the Committee record our views on the recent implementation of the President's Executive Order and the Department of Army's drug testing program. Many events have occurred since the programs began which have served to strengthen our opposition to random urinalysis of civilian workers. I commend the Committee for its attention to the ongoing problems with drug testing of Federal workers, and I look forward to working with you to prevent the infringement of the rights of these employees.

Let me begin by discussing our initial lawsuit to block the testing of employees at Aberdeen. In April, 1986 NFFE instituted suit in District Court seeking to enjoin the Army from implementing a program of random urinalysis of 10,000 civilian employees. The action alleged violations of the Fourth Amendment protection from unreasonable searches and seizures, constitutional right of privacy, due process, the Administrative Procedure Act and the Drug Abuse Office and Treatment Act. We asserted that any testing without a reasonable, objective basis for suspicion violates the Fourth Amendment. The District Court for D.C. dismissed the lawsuit for lack of jurisdiction. Issues of both jurisdiction and the merits were briefed and argued and are awaiting a decision by the D.C. Circuit. NFFE is also a party to a lawsuit before the U.S. District

Court in New Orleans, attacking the Executive Order and implementing regulations.

Second, I would like to reaffirm our opposition to random drug testing on constitutional grounds. Under the Executive Order and the Department of Army's program, workers are subjected to random and periodic urinalysis whether or not drug abuse is suspected. This testing is the ultimate invasion of a worker's privacy and also violates the Fourth Amendments prohibition against unreasonable searches and seizures. We believe that for the average employee, testing may be authorized only where there is probable cause of job impairment resulting from drug use. However, employees in safety sensitive or law enforcement positions may be tested under the lower standard of "reasonable suspicion" of job impairment resulting from drug use. A finding of either probable cause or reasonable suspicion must be based on objective evidence.

Third, we do not believe that drug testing is necessary because the Federal Government has shown no evidence that drug abuse is widespread or on the increase among its workers. In fact, the Department of Defense has found exactly the opposite. In an article on the Defense Department's urinalysis policy for civilians in the June 3, 1985 issue of The Federal Times, the Department acknowledged that the problem of drug abuse among civilians is "very small." Nor have any of the other Executive Departments even mentioned drug use among their employees since then.

Furthermore, Federal workers do not fit the accepted "profile" of drug abusers, who are most often young, single, hold temporary jobs and have considerable disposable income. Federal employees, on the other hand, are generally mature, more likely to be married, hold career jobs in which they have invested several years and, because of recent pay caps and freezes, unlikely to have the extra funds to purchase drugs.

Fourth, we oppose drug testing because policies already exist within the Federal Government for handling problems of on-duty drug abuse. Few Federal workers are willing or able to tolerate working with a co-worker who is under the influence of a controlled substance. However, if such a situation exists, managers should offer drug abuse counseling to an employee before taking any disciplinary action. Under existing procedures, Federal supervisors have been able to identify employees with alcohol or drug problems and have referred them for treatment. Drug and alcohol abuse must be recognized for the illness that it is. Treatment can be extremely effective for many workers suffering from such abuse, and agencies can avoid expensive separation and retraining costs by first providing drug abuse treatment to affected workers.

Mr. Chairman, the Executive Order presented the lofty goal of offering drug users a helping hand. But as is so often the case with this Administration, the reality of implementation has set in. The guidelines by OPM and the HHS regulations have emphasized the punitive aspects of drug testing to the near exclusion of concern for employee welfare. The Order specifically requires that Employee Assistance Programs (EAPs) emphasize counseling. Yet the plan designed by OPM almost completely ignores this requirement. The Model EAP (attachment 6 to FPM Letter 792-16) explicitly provides that the EAP counselor will refer an employee to someone else for counseling.

Clearly, under OPM's plans, the only counseling an agency will provide a worker is a periodic test to ensure that he or she is still on the wagon (attachment 6, Section 8.a., 8.c.). OPM's interpretation of the Executive Order thus transforms the EAPs into mere referral services and quasi-parole boards, hardly the quality rehabilitation programs envisioned by the Order.

Particularly disturbing is OPM's disdain for employee privacy, which is theoretically protected by the Executive Order. OPM explicitly requires that upon referral to an EAP, an employee must sign a form waiving his Privacy Act rights and giving his supervisor access to all his rehabilitation records (Attachment 6, Section 8.c.). Failure to execute the form could be considered failure to obtain or successfully complete counseling and therefore could be a basis for removal (Section 5.d. of the FPM Letter 792-16).

The HHS regulations offer no better assurance of quality testing. Under the regulations, the first link in the chain of custody is the person in charge at the collection site. The regulation proscribes no standards or qualifications for that person, despite the fact that he or she performs critical functions conducting observations of the employees, establishing a chain of custody, and taking the temperature of the urine samples. Thus, the first link is extremely weak, and there is substantial likelihood that inexperienced collection site personnel will taint the whole procedure.

In addition, the HHS regulations are no better than the OPM guidelines in protecting privacy. Employees will be carefully monitored as they empty their bladders, in the presence of a monitor or collection site person. Although the employee will not be under direct visual observation, the monitor is to stand outside the stall and listen for "normal" sounds of urination. Moreover, the monitor will require the employee to remove all "unnecessary" outergarments, leaving it to the monitor to decide what is unnecessary. Perhaps the most farcical requirement is that the monitor is to record carefully any "unusual behavior." I submit, Mr. Chairman, that most of us would behave in an unusual manner if we were placed under custody to provide a urine sample.

Furthermore, the monitor is required to add a bluing agent to the toilet tank, presumably to discourage adulteration of the sample. This seems ludicrous since the employee knows that his or her sample will be tested for temperature, and the water in the bowl is probably 30°- 50° Fahrenheit below 98.8°. The regulations are almost as insulting as the drug test itself. Not only does the Administration seem to believe that Federal employees are drug abusers; they are assumed to be liars and cheaters as well.

Most Federal workers strongly resent a program that forces them to offer up their bodily fluids for inspection. Just as invasive, however, is the fact that workers who take prescribed medicines are now forced for their own protection to inform their supervisors, so that any prescribed drugs would be noted during the testing of the sample. We can think of many instances in which an employee would prefer to keep his or her medical history private. For example, a worker under the care of a psychiatrist would likely prefer not to divulge use of anti-depressants or other psychiatric drugs. An employee being treated for heart disease might prefer not to alert a supervisor to the illness, because the employee might then be turned down for a more stressful job assignment or promotion. In addition, women may be forced to reveal that they are menstuating as this is a known basis for false positives. Yet despite an employee's reasonable desire for privacy, the Executive Order and the Army's program force employees to divulge this information to supervisors. But if such information is not provided, false positives will occur with alarming frequency.

Another critical argument against drug testing is that the Federal Government should have to prove "nexus" or a connection between off-duty use of substances and the performance of work. Urinalysis testing can result in a positive test for controlled substances up to four weeks after use. However, such tests only detect the presence of such substances, not intoxication or any on-the-job impairment. There is no more connection between an employee's off-duty use of these substances and the on-duty danger to employees or Federal property than there is a connection between an Air Force General's drinking four martinis on a Saturday night and reporting for duty at 7:00 Monday morning. Because there is no demonstrable "nexus" between off-duty substance use and an individual's employment, positive results on a test should not be the basis for disciplinary action, even with subsequent testing.

The use of positive urinalysis as the sole reason to terminate or remove an employee violates one of the basic purposes of the nexus requirement, "to minimize unjustified government intrusion into the private activities of Federal employees." Doe v. Hampton 566 F.2d 265 (1977). Clearly, we believe that the testing program is an invasion of an employee's privacy.

NFFE is also extremely concerned about the cost of the drug testing proposal. The Department of Defense spent $48 million in fiscal year 1985 for three million urinalyses for active duty personnel.

A conservative estimate for the cost of conducting drug testing for the civilian Federal workforce is $40 million. This amount for implementing the Executive Order is prohibitive. Surely, Mr. Chairman, during this time of severe budget cuts, which are threatening to minimize public service, disable or eliminate entire agencies, the Administration should be able to spend such a large amount of money in more productive ways.

Mr. Chairman, the President's Executive Order has done untold damage to the morale of the Federal workforce, which was already at an all-time low prior to the Order. Apparently, it is not enough that the pay and benefits of Federal workers are dramatically lower than their private sector counterparts, and that employees are constantly threatened with contracting out, safety and health hazards, and budget cuts. Now the Administration has decided that further humiliation is necessary.

Aside from the obvious considerations of privacy and constitutional rights, the program is simply bad management. Entire groups of employees should not be humiliated simply because occasional instances of on-duty drug use may occur. Such instances should be handled on an individual basis.

Our final concern is that the Department of Army's program clearly states that the drug testing of civilian employees is not negotiable with recognized labor organizations because it involves the Army's internal security practices within the meaning of 5 U.S.C. §7106(a)(1). We adamantly disagree. Such testing falls within the scope of working conditions of Federal employees, and thus is negotiable. Should the Administration also assert that drug-testing government-wide is not negotiable, we will pursue every legal avenue available.

Mr. Chairman, one of the most important merit principles on which Federal personnel management is based requires that "Employees and applicants for employment should receive fair and equitable treatment in all aspects of personnel management . . . with proper regard for their privacy and constitutional rights" (Title 5, U.S.C. §2301(b)(2)). The Administration's urinalysis program clearly violates this principle. NFFE, its members, and its bargaining unit employees do not condone the use of controlled substances. We cannot, however, condone the testing program's gross violation of the privacy of our members and the intrusion on their rights to work freely within a free society. It is tantamount to a witch hunt, and we will continue to oppose it in Congress, in the courts, and at the bargaining table. Again, we commend you for your attention to this issue, and we look forward to working with you to stop this flagrant violation of the rights of Federal employees.

Office of Personnel Management

FPM Letter 792-16

Federal Personnel Manual System

FPM Letter 792-16

Published in advance
of incorporation in FPM
Supp. 792-2
RETAIN UNTIL SUPERSEDED

SUBJECT: Establishing a Drug-Free Federal Workplace

Washington, D. C. 20415
November 28, 1986

Heads of Departments and Independent Establishments:

1. PURPOSE.

a. The use of illegal drugs by a significant proportion of the national workforce has major adverse effects on the welfare of all Americans, and results in billions of dollars of lost productivity each year. There is no reason to believe that there is a greater incidence of illegal drug use in the Federal workforce than in the private workforce. However, as the Nation's largest employer, the Federal government and its two million civilian employees must be in the forefront of our national effort to eliminate illegal drugs from the American workplace.

b. The use of illegal drugs by Federal employees, whether on or off the job, cannot be tolerated. Employees who use illegal drugs have three to four times more accidents while at work. Federal workers have a right to a safe and secure workplace, and all American citizens, who daily depend on the work of the Federal government for their health, safety, and security, have a right to a reliable and productive civil service. Federal agencies must take action for the protection of individual drug users, their co-workers, and the society at large. In recognition of this, President Reagan, in Executive Order 12564, set forth the policy of the United States Government to eliminate drug use from the Federal workplace.

c. Agencies will establish a comprehensive drug prevention program which is humane, responsible, and effective. In recognition that employees who use drugs are, themselves, primarily responsible for changing their behavior, the program will include drug education and training, employee counseling and assistance, and voluntary drug testing. However, where appropriate, there will be mandatory drug testing and disciplinary action.

d. This will be a balanced program which emphasizes offering a helping hand to employees who are using illegal drugs. At the same time, it must be clear to all that continued illegal drug use by employees will not be tolerated.

e. Under the Executive Order, OPM is directed to issue government-wide guidance to agencies on the implementation of the terms of the Order.

2. AGENCY RESPONSIBILITIES.

a. The head of each Executive agency shall develop a plan for achieving the objective of a drug-free workplace with due consideration of rights of the government, and the employee. Agencies should make every

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Code: 792, Federal Employees' Health and Counseling Programs

Distribution: Basic FPM, FPM Supplement 792-2 reasonable effort to ensure workforce understanding of, and employee organization cooperation with, their drug prevention programs. Communications should emphasize the importance of the drug prevention program for agency mission and the community at large. Further, agencies should ensure that their drug prevention programs complement agency programs to deal with alcohol abuse and related employee problems.

b. Each agency plan shall include:

(1) A statement of policy setting forth the agency's expectations regarding drug use and the action to be anticipated in response to identified drug use;

(2) Employee Assistance Programs (EAP's) with high level direction, emphasizing education, counseling, referral to rehabilitation, and coordination with available community resources;

(3) Supervisory training to assist in identifying and addressing illegal drug use by agency employees (agencies may wish to include material on alcohol abuse in this training);

(4) Provision for self-referral as well as supervisory referrals to counseling or treatment with maximum respect for individual confidentiality consistent with safety and security; and

(5) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis in accordance with E.O. 12564 and the guidance contained below.

c. Agencies shall ensure that drug testing programs in existence as of September 15, 1986, are brought into conformance with E.O.12564.

d. Agencies should consult with the Attorney General regarding their drug testing programs, as provided by Section 6(b) of the Order.

3. AGENCY DRUG TESTING PROGRAMS.

a. Random and Comprehensive Testing in Sensitive Positions. The head of each Executive agency shall establish a program to test for the use of illegal drugs by employees in sensitive positions.

(1) For purposes of this program, the term "employee(s) in a sensitive position" refers to:

(a) An employee in a position that an agency head designates Special Sensitive, Critical-Sensitive, or Noncritical-Sensitive under Chapter 731 of the Federal Personnel Manual or an employee in a position that an agency head designates as sensitive in accordance with Executive Order No. 10450, as amended;

(b) An employee who has been granted access to classified information or may be granted access to classified information pursuant to a determination of trustworthiness by an agency head under Section 4 of Executive Order No. 12356;

(c) Individuals serving under Presidential appointments;

(d) Law enforcement officers as defined in 5 U.S.C. 8321 (20); and

(e) Other positions that the agency head determines involve law enforcement, national security, the protection of life and property, public health or safety, or other functions requiring a high degree of trust and confidence.

(2) The head of each agency has discretion to determine which sensitive positions for which random testing is authorized should be subject to such testing. This determination should be based on the nature of the agency's mission, its employees' duties, the efficient use of agency resources, and the danger that could result from the failure of an employee to discharge his or her duties adequately. Thus, who will actually be tested is a function of a two step analysis by the agency head.

(a) First, the criteria set forth in Section 7(d) of Executive Order 12564 must be applied to all employees in the agency to determine which employees fall into the "pool" of employees potentially subject to drug testing; this is the pool of "employees in sensitive positions" as defined in the Executive Order. While the definition of the pool of "employees in sensitive positions" is the same from agency to agency, the testing of all employees in that pool may be appropriate for some agencies and not for others depending upon the duties of the positions and the missions of the agencies. If an agency head decides not to test all employees in the pool, then a further determination must be made as outlined below.

(b) Second, a determination must then be made from this pool as to which positions will actually be tested. For the sake of clarity within this guidance, this second group of positions is referred to as testing designated positions. Thus, an agency head may determine not to designate all sensitive positions as testing designated positions, but may limit testing to certain positions. For instance, this may include positions where national security considerations are present, as well as positions where there is a clear impact on public health or safety (e.g., air traffic controllers; operators of motor vehicles; medical, nursing, and related health care personnel) or positions relating to illegal drug control (e.g., law enforcement officers such as customs agents and drug enforcement agents). Other positions should be reviewed with particular care when one or more of the following are present as regular, recurring duties: operation or maintenance of any transportation, motor vehicle, aircraft, or heavy or other large mechanical or electrical equipment; work with explosive, toxic, radioactive, or other dangerous materials; work with fluids or gases under heat or pressure; work by employees uniquely positioned to exploit highly sensitive computer or financial data for financial gain.

(3) When selecting testing designated positions, agencies should ensure that the selection process does not result in arbitrary, capricious, or discriminatory selections. Agencies must be able to justify their selection of testing designated positions as a neutral application of the selection criteria set forth in section 3.a.(2)(b), above. Agencies are absolutely prohibited from selecting positions for drug testing on the basis of a desire to test particular individual employees.

(4) Individuals in testing designated positions may be selected for random testing in a variety of ways. For example, their names or social security numbers may be selected randomly by computer, they may be selected according to their birth dates, or they may be selected by the first letter in their surnames.

(5) Random testing contemplates unscheduled testing and random sampling of the employees within the group of testing designated positions. As an alternative to random testing, the head of an agency may, at his or her discretion, designate that all employees in testing designated positions shall be tested.

b. Voluntary Testing. The head of each Executive agency shall establish a program for voluntary employee drug testing that allows employees to participate in the drug testing program. An agency should afford an opportunity for any employee to step forward and be tested at a time determined by the agency.

c. Reasonable Suspicion Testing. In addition to the testing outlined in subsections a. and b. of this section, the head of each Executive agency is authorized to test an employee when there is a reasonable suspicion that any employee uses illegal drugs. For the purposes of this program "reasonable suspicion" is an articulable belief that an employee uses illegal drugs drawn from specific and particularized facts and reasonable inferences from those facts.

(1) Prompt supervisory training to assist in identifying and addressing illegal drug use by agency employees should be provided to supervisors as each agency develops and implements its agency program. Such training will make supervisors more sensitive to employee behavior and help supervisors recognize those facts that give rise to a reasonable suspicion.

(2) "Reasonable suspicion" that an employee uses illegal drugs may be based upon, among other things:

(a) observable phenomena, such as direct observation of drug use and/or the physical symptoms of being under the influences of a drug;

(b) a pattern of abnormal conduct or erratic behavior;

(c) arrest or conviction for a drug related offense; or the identification of an employee as the focus of a criminal investigation into illegal drug possession, use, or trafficking;

(d) information provided either by reliable and credible sources or independently corroborated; or

(e) newly discovered evidence that the employee has tampered with a previous drug test.

(3) Where testing is conducted based on reasonable suspicion, each agency should promptly detail in writing the circumstances which formed the basis of its determination that reasonable suspicion exists to warrant the testing. Such documentation should be retained in the adverse action file compiled by the agency.

d. Specific Condition Testing. The head of each agency is also authorized to test an employee for illegal drug use in an examination authorized by the agency regarding an accident or unsafe practice.

e. Followup Testing. The head of each agency may also require agency administered followup drug test during or after counseling or rehabilitation for illegal drug use through an Employee Assistance Program. While followup testing may be undertaken as a part of counseling or rehabilitation under the Employee Assistance Program, only the results of agency-administered followup testing may be used, if confirmed positive results are obtained, to support an adverse action taken under section 5(d)(2) of the Executive Order. Such agency-administered followup testing should be unannounced.

f. Applicant Testing. The head of each Executive agency is authorized, but not required, to test any applicant for illegal drug use. Agency heads who choose to test applicants for illegal drug use have a variety of options. For example, depending on the mission of the agency, an agency may wish to test all applicants for employment. On the other hand, an agency may determine that it will limit applicant testing to applicants for testing designated positions. Where an applicant must submit to a physical examination as a condition of employment, an agency may wish to require a drug test as part of the physical examination procedures.

(1) Agencies should include notice of drug testing on vacancy announcements for those positions where drug testing is required. A sample notice provision for vacancy announcements or other information about the position would read as follows: "All applicants for this position will be required to submit to a urinalysis for illegal drug use prior to appointment in the Federal service."

(2) Where applicants are given preemployment physical examinations, drug testing may be performed as part of the physical examination procedures. Where no physical examinations are required, applicants should be contacted and directed to report to a designated contractor or agency facility for their drug test. Before conducting a drug test, all applicants should be advised of the opportunity to submit medical documentation that may support a legitimate use for a specific drug. Aside from the general notice of the drug testing requirement in vacancy announcements, applicants should receive as little notice as possible of the actual date and time of their drug test. A urine specimen should be taken no more than forty-eight hours after the applicant is contacted to set up the drug testing.

(3) In remote locations, applicants should be directed to report to the nearest contractor or agency facility. Agencies shall provide for reimbursement to applicants for reasonable expenses incurred in travel to the drug testing facility. In extremely remote areas, the contractor may be required to travel periodically to the region to perform drug testing of applicants.

(4) All applicants with confirmed positive test results shall be refused employment.

g. Hardship Exemption. Agencies may choose to exempt certain positions from the drug testing program on the basis of hardship due to the remote location of the duty station of the positions, the unavailability of on-site testing personnel, or the lack of an appropriate site for test administration. Agencies should, however, use reasonable means to overcome such hardships.

4. DRUG TESTING PROCEDURES.

a. 60 Day General Notice to All Employees.

(1) Agencies which have not yet implemented a drug testing program shall ensure that at least sixty days elapse between a general one-time notice to all employees that a drug testing program is being implemented and the beginning of actual drug testing. Such notice should indicate the purpose of the drug testing program, the availability of counseling and rehabilitation assistance through the agency's Employee Assistance Program, when testing will commence, the general categories of employees to be tested, and the general parameters of testing. Agencies may decide to include with their notice a description of their drug program or a copy of the internal personnel rules establishing their program.

(2) Agencies with drug testing programs already in place prior to issuance of Executive Order 12564 on September 15, 1986, are not required to stop testing and provide a 60 day notice period.

(3) Any agency may take action as described in parts 3.c. and 3.d. of this letter without reference to the 60 day notice requirement.

b. Special Notice to Covered Employees. Agencies should ensure a specific notice is given, in writing, to each employee in a testing designated position no later than thirty days before testing commences. We recommend that agencies obtain a written acknowledgement of receipt of the notice. A sample acknowledgement for agency consideration is provided as attachment 1 to this letter. The notice should contain the following information:

(1) The reasons for the urinalysis test, consistent with agency policy formulated in accordance with sections 1 and 3.a. of this letter.

(2) Notice of the opportunity for an employee to identify himself voluntarily as a user of illegal drugs willing to undertake counseling and, as necessary, rehabilitation, in which case disciplinary action is not required.

(3) Assurance that the quality of testing procedures is tightly controlled, that the test used to confirm use of illegal drugs is highly reliable, and that test results will be handled with maximum respect for individual confidentiality, consistent with safety and security.

(4) Notice of the opportunity and procedures for submitting supplemental medical documentation that may support a legitimate use for a specific drug.

(5) The circumstances under which testing may occur, consistent with the policy set forward in section 3 of this letter.

(6) The consequences of a confirmed positive result or refusal to be tested, including disciplinary action.

(7) The availability of drug abuse counseling and referral services, including the name and telephone number of the local Employee Assistance Program counselor.

c. Notice to Employees Tested Under Specific Conditions. Employees being tested under conditions outlined in section 3.c., 3.d., and 3.e. will receiv notice that includes information contained in section 4.b., paragraphs (1), (3), (4), (6), and (7).

d. Agency Response to Persons Refusing to Participate in a Required Drug Test.

(1) To maintain the integrity of the testing and enforcement program, agencies must take disciplinary action to deal with employees who refuse to be tested. Such action may include, but is not necessarily limited to, removal of such employees as failing to meet a condition of employment.

(2) Applicants who are not current employees and who refuse to be tested must be refused that employment.

e. Technical Guidelines for Drug Testing. The Secretary of Health and Human Services, as directed by Executive Order No. 12564, will issue scientific and technical guidelines for drug testing programs. Agencies will conduct their drug testing programs in accordance with those scientific and technical guidelines.

f. Confidentiality of Test Results. Agency drug testing programs under E.O. 12564 shall contain procedures to protect the confidentiality of test results and related medical and rehabilitation records.

(1) Records of the identity, diagnosis, prognosis, or treatment of any patient which are maintained in connection with performance of a drug abuse prevention program conducted by a Federal agency must be kept confidential and may be disclosed only under limited circumstances and for specific purposes. Agencies may wish to refer to regulations issued by the Department of Health and Human Services (42 C.F.R. §2.1, *et seq.* (1986)) on maintaining the confidentiality of treatment records.

(2) Drug abuse treatment records may be disclosed without the consent of the patient only:

(a) to medical personnel to the extent necessary to meet a genuine medical emergency;

(b) to qualified personnel for conducting scientific research, management audits, financial audits, or program evaluation, with all identifying information removed from the data; or

(c) if authorized by an appropriate court order granted after application showing good cause.

(3) Any other disclosure may be made only with the written consent of the patient, and only under the circumstances set out below. Such consensual disclosure may be made to the patient's employer for verification of treatment or a general evaluation of treatment progress.

(4) Agency drug testing programs should include confidentiality protections consistent with the above requirements. These protections should extend to drug testing records as well as to treatment and rehabilitation records.

(5) Accordingly, neither drug test results nor drug abuse treatment or rehabilitation records may be otherwise disclosed by agencies without the consent of the employee involved. A sample consent for release of patient

information during and after treatment or rehabilitation and a sample release memorandum are included in attachments 2 and 3, respectively. Any disclosure without such consent is strictly prohibited.

(6) As part of the drug testing procedure, agencies should obtain consent to disclose confirmed positive test results to the agency's medical review official (as defined in the HHS guidelines), the administrator of the agency Employee Assistance Program (EAP), and to the management official empowered to recommend or take action. This consent must be obtained prior to the test itself. Consequently, refusal to consent to release of this information will be considered a refusal to take the test.

(7) As provided by the employee consent, confirmed positive test results will be forwarded to the agency EAP program administrator and to the management official empowered to recommend or take action. Records of unconfirmed positive test results and negative test results will be destroyed by the laboratory.

g. Privacy in Drug Testing. Agency drug testing procedures under E.O. 12564 must allow individual privacy unless the agency has reason to believe that a particular individual may alter or substitute the specimen to be provided. Employees and applicants required to be tested shall be made aware of the opportunity to request privacy in the collection of the sample.

(1) If an employee or applicant to be tested requests privacy, the sample shall be provided in a rest room stall or similar enclosure so that the employee is not being viewed while providing the sample. However, this requirement does not restrict the ability of the employer to control the test area and to take other actions to ensure that the employee does not substitute or tamper with the sample. For example, the employer may: (a) control the test area to ensure that samples have not been hidden for substitution; (b) prohibit the carrying of bags, luggage, briefcases, or other containers into the test area; (c) prohibit the wearing of coats and/or jackets in the test area; (d) station a testing official in the rest room outside the stall where visual observation is not possible, but where the official can monitor the setting for tampering; (e) examine the sample after it is provided for abnormalities in color, temperature, or other evidence that tampering may have occurred.

(2) In the event that employees or applicants do not request individual privacy, the agency may provide that the provision of the sample may be observed by a testing official.

(3) Agencies should provide guidance on the circumstances when observation may be required. Generally, an employee or applicant may be required to provide a sample under observation if there is reason to believe that the employee or applicant may alter or substitute the urine specimen. For example, employers may wish to require observation when facts and circumstances suggest that the person to be tested: (a) is an illegal drug user; (b) is under the influence of drugs at the time of the test; (c) has previously been confirmed by the agency to be an illegal drug user; (d) is seen to have equipment or implements used to tamper with urine samples; (e) has recently been determined to have tampered with a sample.

5. AGENCY ACTION UPON FINDING THAT AN EMPLOYEE USES ILLEGAL DRUGS.

a. Drug Use Determination. The determination that an employee uses illegal drugs may be made on the basis of direct observation, a criminal conviction, confirmed results of the agency's drug testing program, the employee's own admission, or other appropriate administrative determinations.

b. Mandatory Removal from Sensitive Positions. While removal of an employee confirmed to use illegal drugs is authorized under the Executive Order, removal from the Federal service is required after a second determination that the employee uses illegal drugs. If occupying a sensitive position, the employee must not be allowed to remain on duty status in that position. Removal of a sensitive employee determined to use illegal drugs may be required if there are no non-sensitive positions to which the employee may be transferred in the agency, unless the agency head determines that maintaining the employee in the sensitive position would not pose a danger to public health or safety or the national security.

c. Mandatory EAP Referral. Upon reaching a finding that an employee uses illegal drugs, agencies will refer the employee to an Employee Assistance Program and give the employee an opportunity to undertake rehabilitation. While agencies should provide reasonable assistance to employees who demonstrate a desire to become drug-free, the ultimate responsibility to be drug-free rests with the individual employee.

d. Discretionary Disciplinary Actions. Upon the first confirmed determination that an employee uses illegal drugs, there are a range of disciplinary actions available to an agency, from a written reprimand to removal. Except for employees who voluntarily identify themselves as users of illegal drugs, obtain appropriate counseling and rehabilitation, and thereafter refrain from illegal drug use, agencies are required to initiate disciplinary action against employees who are found to use illegal drugs. Agencies have discretion in deciding what disciplinary measures to initiate, consistent with the requirements of the Civil Service Reform Act and other appropriate factors. Among the disciplinary measures available to agencies are the following:

(1) Reprimanding the employee in writing.

(2) Placing the employee in an enforced leave status, consistent with the procedural requirements of 5 C.F.R. 752.203 or 752.404 as appropriate.

(3) Suspending the employee for fourteen days or less consistent with the procedural requirements in 5 C.F.R. 752.203.

(4) Suspending the employee for 15 days or more consistent with the procedural requirements in 5 C.F.R. 752.404.

(5) Suspending the employee, consistent with the procedural requirements in 5 C.F.R. 752.404, until such time as he or she successfully completes counseling or rehabilitation or until the agency determines that action other than suspension is more appropriate to the individual situation.

(6) Removing the employee from Federal service, consistent with the procedural requirements of 5 C.F.R. 752.404, for: confirmed illicit use of an illegal drug; refusal to take a drug test authorized by E.O. 12564; refusal to obtain or successfully complete counseling or rehabilitation as required by the Executive Order; or once having completed counseling or rehabilitation, failing to refrain from illegal drug use.

(7) Separating the employee from Federal service is mandatory upon a second confirmed finding of illegal drug use

e. Preponderance of Evidence Requirement. Agencies are reminded that any action, including removal, taken against an employee under title 5 United States Code, Chapter 75, must be supported by a preponderance of the evidence. Care must be taken in the conduct of tests and the handling of testing samples to ensure that requirements of evidentiary proof may be met.

6. STATISTICAL REPORTING. Agencies shall keep statistical records on: (1) the number of employees tested and the number of employees with confirmed positive tests; and (2) the number of applicants tested and the number of applicants with confirmed positive tests. Personally identifying information in these statistical records is strictly prohibited.

7. EMPLOYEE COUNSELING AND ASSISTANCE.

a. Program Requirement. Federal agencies are required by Public Law 92-255, as amended, and by 5 C.F.R. 792 to establish programs for appropriate prevention, treatment and rehabilitation of Federal civilian employees with drug abuse problems. Agencies are authorized to establish Employee Assistance Programs to meet this mandate.

b. EAP Requirement. Executive Order 12564 identifies Employee Assistance Programs as an essential element to an agency's plan to achieve a drug-free workforce, and explicitly states that agencies shall refer all employees found to be using illegal drugs to their Employee Assistance Program for assessment, counseling, and referral for treatment or rehabilitation as appropriate.

c. EAP Role. Employee Assistance Programs play an important role in identifying and resolving employee substance abuse by: demonstrating the agency's commitment to eliminating illegal drug use; providing employees an opportunity, with appropriate assistance, to discontinue their drug abuse; providing educational materials to managers, supervisors and employees on drug abuse issues; assisting supervisors in confronting employees who have performance and/or conduct problems which may be based in substance abuse; assessing employee-client problems and making referrals to appropriate treatment and rehabilitation facilities; and followup with individuals during the rehabilitation period to track their progress and encourage successful completion of the program.

d. EAP Elements. In keeping with Executive Order 12564, agencies should ensure that:

(1) EAP's are available to all employees, including those located outside of the Washington metropolitan area and major regional cities. Agencies are encouraged to explore a variety of means for meeting this requirement, including private contractors and cooperative arrangements with other Federal agencies, State and local governments, and non-profit organizations.

(2) At sites where it is not feasible to establish a continuing EAP, agencies should arrange for employee access on a "needs" basis to comparable local resources or to services of established EAP's in other locations.

(3) EAP's, whether in-house or operated through contract, are adequately staffed with fully qualified individuals who can:

(a) Provide counseling and assistance to employees who self-refer for treatment or whose drug tests have been confirmed positive, and monitor the employees' progress through treatment and rehabilitation;

(b) Provide needed education and training to all levels of the organization on types and effects of drugs, symptoms of drug use and its impact on performance and conduct, relationship of the employee assistance program with the drug testing program, and related treatment, rehabilitation, and confidentiality issues;

(c) Ensure that the confidentiality of test results and related medical and rehabilitation records are maintained in accordance with the specific requirements contained in Public Laws 92-255 and 93-282, with regulations published in 42 C.F.R., Part 2, and with guidance contained in Section 4. of this Letter.

(4) Adequate treatment resources have been identified in the community in order to facilitate referral of drug abuse clients.

(5) All employees in the agency are informed about the EAP and its services.

(6) The Employee Assistance Program plays an appropriate role in the development and implementation of the agency's drug testing program. EAP's should not be involved in the collection of urine samples or the initial reporting of the results of drug tests, but rather be a critical component in the agency's efforts to counsel and rehabilitate drug-abusing employees, as well as in educating the workforce on drug abuse and its symptoms.

e. Further EAP Assistance.

(1) Attachment 4 provides a list of consortia throughout the United States. Agencies wishing to join an existing consortium should contact the individual listed regarding that possibility.

(2) Attachment 5 provides the names and addresses of organizations which have developed information on treatment facilities in the Washington, D.C. area and throughout the U.S.

(3) The Model Employee Assistance Program provided as attachment 6 addresses those functions we consider essential for an EAP to provide in support of the President's drug-free workplace initiative. It should be of use to agencies in developing new EAP's and in assessing the adequacy of existing programs. OPM's Employee Health Services Branch (Tel: FTS 632-5558) is available for technical assistance on these provisions.

Constance Horner

Constance Horner
Director

Attachments

Attachment 1 to FPM Letter 792-16

-SAMPLE-

[AGENCY NAME]

ACKNOWLEDGEMENT OF NOTICE TO EMPLOYEES WHOSE POSITION IS DESIGNATED SENSITIVE FOR DRUG TESTING PURPOSES

I acknowledge receiving notice of the establishment of [agency name]'s employee drug testing program. I understand that I may be selected for screening by urinalysis testing for the presence of controlled substances. I understand that a confirmed positive result of that testing or refusal to submit to testing may result in disciplinary action up to and including dismissal from the Federal service.

I have read the notice announcing the establishment of an employee drug testing program.

Printed or Typed Name

Signature of Employee

Date

Attachment 2 to FPM Letter 792-16

-SAMPLE-

CONSENT FOR RELEASE OF PATIENT INFORMATION DURING OR AFTER TREATMENT OR REHABILITATION

I, ______________________, hereby consent to the disclosure of
(Employee/Patient name)
information concerning my progress in terminating illegal drug use. I authorize the ______________________ to disclose that information to
(Treatment/Rehabilitation Facility)

______________________, director of the Employee Assistance Program
(Name)
at ______________________ and to ______________________, my supervisor
(Name of Agency) (Name of supervisor)
and to the agency Medical Review Official for drug use monitoring under Executive Order 12564, which provides for a drug-free Federal workplace.

I understand that this consent is subject to revocation at any time, except to the extent that action has been taken in reliance thereon, and that it will expire without express revocation upon ______________________
(date, event, condition.)

This consent to disclose the above-described treatment records was freely given, without reservation, for the purpose set out above.

____
(Signature of employee/patient)

____
(Date on which consent is signed)

CLAUSE FOR USE IF EMPLOYEE IS A MINOR OR LEGALLY INCOMPETENT

I, ______________________, the [parent/legal guardian or personal
(Name)
legal representative] of the above named employee/patient, hereby consent to the aforementioned release of information on his/her behalf.

____
(Signature)

____
(Date)

-SAMPLE-

RELEASE MEMORANDUM

SUBJECT: Release of Patient Information

FROM: [Program making the disclosure]

TO: [Name or title of the person or organization to which the disclosure is to be made]

In accordance with the attached "Consent for Release of Patient Information," we have released information to you on [Patient's name].

This information has been disclosed to you from records whose confidentiality is protected by Federal law. See 42 U.S.C. § 290ee-3. Federal regulations, at 42 C.F.R. Part 2, prohibit you from making any further disclosure of it without the specific written consent of the person to whom it pertains, or as otherwise permitted by those regulations. A general authorization for the release of medical or other information is NOT sufficient for this purpose.

(Note: This memorandum is substantially the same as the one appearing in Appendix D of FPM Supplement 792-2.)

Attachment 4 to FPM Letter 792-16

CURRENT OPERATING CONSORTIA

GEOGRAPHIC LOCATION	LEAD AGENCY	POINT OF CONTACT	TELE NO.
ANCHORAGE, AK	FAA	JAMES OLIVER	907-271-5875
ATLANTA, GA	HHS	MARILYN MONTGOMERY	242-2713
BOSTON, MA	OPM	JOAN KENNEDY	223-2273
BUFFALO, NY	HHS	BOB MAZZOCHI	264-5505
CHICAGO, IL	PHS	FRANCES WENCE	353-1719
CINCINNATI, OH	PHS	FRANCES WENCE	353-1719
DALLAS, TX	HHS	MARY PERKINS	729-3126
DENVER, CO	PHS	DR. R. LORTSCHER	776-0078
KANSAS CITY, MO	HHS	JOHN MCCLAY	758-3597
LONG ISLAND, NY	HHS	BOB MAZZOCHI	264-5505
STATE OF MICHIGAN	PHS	FRANCES WENCE	353-1719
NEWARK, NJ	HHS	BOB MAZZOCHI	264-5505
NEW YORK CITY, NY	HHS	BOB MAZZOCHI	264-5505
PHILADELPHIA, PA	HHS	BEVERLY JANDA	596-6712
SAN JUAN, PR	HHS	BOB MAZZOCHI	264-5505
SEATTLE, WA	ARMY CORP OF ENG.	TERRY CONOVER	206-764-3568
VIRGIN ISLANDS	HHS	BOB MAZZOCHI	264-5505
WASHINGTON, DC	PHS	AMY BARKIN (PHS) CAROL PAPE (OPM)	443-4357 653-8438

Attachment 5 to FPM Letter 792-16

TREATMENT FACILITY DIRECTORIES

1. National Directory of Drug Abuse and Alcoholism Treatment and Prevention Program, Stock No. 017024-01252-1, Cost: $16.00

   Available from: Superintendent of Documents
   Government Printing Office
   Washington, D.C. 20402
   Tele: (202) 783-3238

2. Washington Metropolitan Area Directory of Alcohol/Drug Treatment Resources, OPM WPS-01, September 1984, No Cost

   Available from: Office of Personnel Management
   Employee Health Services Branch (PSOG)
   1900 E. Street, N.W. Room 7H39
   Washington, D.C. 20415
   Tele: (202) 632-5558

3. Coping Catalog (listing resources available in the Washington Metropolitan Area for alcohol, drugs and other addictions problems) Updated catalog expected to be available December 1986. Cost to be determined.

   Available from: The Washington Area Council on Alcohol and Drug Abuse
   1221 Massachusetts Ave., N.W.
   Washington, D.C. 20005
   Tele: (202) 783-1300

Attachment 6 to FPM Letter 792-16

MODEL EMPLOYEE ASSISTANCE PROGRAM IN SUPPORT OF A DRUG-FREE WORKPLACE

1. Purpose. To implement fully an effective Employee Assistance Program (EAP) within (agency) which provides short term counseling and referral services to employees with drug problems. This is in keeping with the President's policy, set forth in Executive Order 12564, to eliminate drug use from the Federal workplace and to offer an opportunity for rehabilitation to users of illegal drugs. This model is intended to supplement ongoing employee assistance programs which, in addition to drug abuse, address alcohol abuse and other employee problems.

2. Background. Public Law 92-255, as amended, requires Federal agencies to develop and maintain appropriate prevention, treatment and rehabilitation programs and services for drug abuse among Federal employees. Regulations implementing this requirement are contained in Title 5, Code of Federal Regulations (CFR) Part 792. Guidance is further provided in Subchapters 5 and 6 of Federal Personnel Manual (FPM) Chapter 792, and FPM Supplement 792-2. Executive Order 12564 of September 15, 1986, established further requirements for agencies and employees in order to obtain a drug-free Federal Workplace. On October 27, 1986, the President signed into law the Omnibus Drug Enforcement, Education, and Control Act of 1986, P.L. 99-570. That law reiterates Congressional concern about the prevention of illegal drug use and the treatment of Federal employees who use drugs.

3. Objective. The objective of the EAP is to assist employees with drug problems to find treatment, to follow up with them during recovery and rehabilitation, and to help them remain drug-free.

4. Policy.

A. As an employer, the (agency) is concerned with the well-being of its employees, the maintenance of workforce productivity, and the preservation of a safe and secure workplace. The use of illegal drugs by (agency) employees, whether on or off the job, is inconsistent with these goals and will not be tolerated.

B. The (agency) stands ready to assist employees in becoming drug free.

C. Employees who are users of illegal drugs are encouraged to seek counseling and other appropriate assistance voluntarily, including that available through the (agency's) Employee Assistance Program.

D. The confidential nature of client records will be safeguarded and only disclosed in accordance with the confidentiality provisions of Title 42 CFR, Part 2.

E. To the extent feasible, program services will be provided to family members dealing with the drug problem of an employee, or to an employee dealing with the drug problem of a family member.

5. Program Responsibilities.

A. Agency Employee Assistance Program Administrator. The Employee Assistance Program Administrator has the lead role in ensuring that the (agency's) EAP program meets the requirements of E.O. 12564, and is responsible for the development, implementation and review of the agency EAP. In addition to supervising the headquarters EAP Coordinator and counselor(s), the Administrator will provide advice and assistance in establishing field office EAP's. The EAP Administrator will advise agency components on the submission of annual statistical reports and will prepare consolidated reports on the agency's EAP activity for submission to the Office of Personnel Management on a fiscal year basis.

B. Employee Assistance Program Coordinators.

(1) The Employee Assistance Program Coordinator has responsibility for implementing and operating the EAP within an agency component, such as the Headquarters office or a field installation. More than one coordinator may be deemed necessary, depending on the size of the assigned component. Where the EAP services are contracted out, the coordinator has responsibility for monitoring the contractor performance and verifying services rendered within (agency). The person(s) selected for such assignments will be allotted sufficient official time to:

(a) implement effectively the agency employee assistance policy and program as well as to assist in the development and implementation of the agency drug testing program as it relates to the counseling and rehabilitation of drug-abusing employees;

(b) determine appropriate supervisory training and other activities needed to educate and inform the workforce about drugs and symptoms of drug abuse;

(c) develop and maintain counseling capability (through personnel, medical, or other counseling resource, including contracting out);

(d) establish liaison with community education, treatment and rehabilitation facilities; and,

(e) evaluate the program and report to management on results and effectiveness.

C. Employee Assistance Counselors. (1) In some instances, the EAP Coordinator may have the necessary skills, time and motivation to function as the Employee Assistance Counselor. The Employee Assistance Counselor serves as the initial point of contact for employees who ask or are referred for counseling, and will be allotted sufficient official time to implement the program effectively. At a minimum, persons designated as Employee Assistance Counselors should be, or provisions should be made for them to be:

(a) Familiar with the provisions of Executive Order 12564, "Drug-Free Federal Workplace" and Federal Personnel Manual Letter 792-16, "Establishing a Drug-Free Federal Workplace".

(b) Trained in:

- counseling employees in the occupational setting,
- identification of drug abuse, and,
- administering the Employee Assistance Program.

(c) Able to communicate effectively with employees, supervisors and managers concerning drug use and its symptoms and consequences.

(d) Knowledgeable about community resources for treatment and rehabilitation of drug users, including information on fees and payment schedules.

(e) Able to discuss drug treatment and rehabilitation insurance coverage available to employees through the Federal Employee Health Benefits Program.

(f) Able to distinguish the occasional user from the addicted user and to suggest the appropriate treatment based on that information (e.g., after hours attendance at Narcotics Anonymous meetings to significant medical assistance).

(g) Able to provide training and education on drug abuse to employees, supervisors, union representatives, etc.

(2) In offices where counseling staff is not available within the agency, reasonable efforts should be made to provide employees with access to a qualified counselor outside of the agency. This may include authorizing official time for the employee to visit or be visited by a counselor personally, or other steps which may be appropriate.

(3) For employees referred as a result of drug-testing, counselors should document the treatment plan prescribed. Signature of this document by both the counselor and client will ensure mutual understanding of the treatment plan and the consequences of failure to remain drug free.

(4) In order for the counselor to be viewed as the source of assistance and understanding for employees, the person(s) performing these functions should not be involved in the actual drug testing of employees.

D. Employee's Role. All employees are encouraged to enhance their drug awareness through educational opportunities afforded by the EAP or the community at large. Employees who are illegal drug users are encouraged to seek counseling assistance voluntarily. Employees found to be users of illegal drugs are required to accept referral to the EAP and are urged to cooperate with medical treatment and/or rehabilitation programs that are indicated.

E. Medical Personnel.

(1) Employee health units provide emergency diagnoses and first treatment of injury or illness of employees during duty hours. Where indicated, the employee should be further referred to a private physician or community health service. If such cases ultimately are determined to have stemmed from abuse of drugs, medical personnel should discuss the facts of the situation with the supervisor and the employee and refer the employee for counseling. A close working relationship with the EAP Counselor(s) is essential for program success. The Health Unit staff is available for consultation with and assistance to personnel assigned EAP responsibilities.

(2) Where such facilities do not exist, these services are provided whenever possible through existing occupational health facilities and/or community physicians or clinics.

6. Training and Education.

A. Supervisory training. Employee counselors will conduct or otherwise provide training sessions for agency supervisors on the handling of problems of substance abuse. Appropriate topics include:

(1) Drug awareness and symptoms of drug use.

(2) Recommended methods for dealing with the suspected or identified drug user.

(3) Supervisory responsibilities under E.O. 12564.

(4) Confrontation and referral techniques.

(5) Explanation of the (agency) employee assistance program and its relationship with the (agency) drug testing program.

(6) General principles of rehabilitation including techniques for supervisors to assist employees in returning to the worksite, given specific (agency) needs and requirements.

(7) Personnel management issues (e.g., relationship of this program to performance appraisal and disciplinary programs; leave usage; and, supervisory notes and documentation).

B. Employee education. The Employee Assistance Coordinator will ensure that employee seminars on topics dealing with drug use are provided periodically. Managers and supervisors shall encourage employee attendance at these seminars and provide other appropriate support. On a continuing basis, educational materials and information on drug abuse will be available to individual employees.

7. Publicity of EAP to employees.

A. This policy and program will be made known to all (agency) employees. All new employees will be informed of the services available under this program as they enter on duty.

B. The names and locations of Employee Assistance Counselor(s) should be listed in telephone directories and displayed on employee bulletin boards.

C. Periodic employee memoranda and other appropriate publications should be used to keep employees informed of EAP services.

8. Short-term Counseling and Referral.

A. Referrals to the Employee Assistance Program are for the purposes of identifying the problem, referring the employee to the appropriate treatment resource in the community and following up with the employee during recovery and rehabilitation.

B. Voluntary referrals, or self referrals, are to be encouraged throughout EAP materials.

C. In the case of a management referral as a result of a positive drug screen, the employee assistance staff will interview and/or consult with supervisors and management officials, as requested, and provide them with guidance on how to refer the drug abusing employee to the assistance program. Once the referral is made, and the employee agrees to the appointment with the counselor, the counselor will require the employee to sign a consent for release of information to the supervisor before assistance will be provided. This consent will cover the release of information pertaining to the employee's compliance with the agreed upon treatment plan and the employee's progress during and at the end of treatment. Upon obtaining the signed consent, the counselor will assess the problem(s), review the employee's health insurance coverage and refer the individual to an appropriate treatment resource in the Community. The counselor will monitor the employee's treatment and keep the supervisor advised as to the progress being made. The counselor will periodically follow-up with the employee and his or her supervisor after any treatment which occurs and offer support and assistance as needed.

9. Community Resources. The EAP will develop a working relationship with community assistance resources. Program coordinators and counselors will determine which community agencies or individuals best meet employee and management needs. Contact should be established with specialized resources such as the following:

A. State drug authorities for help in identifying treatment resources for drug abusing employees;

B. Narcotics Anonymous for information on where and when meetings are held;

C. Hospital and clinic treatment facilities in order to establish a working relationship between the counselor and the receiving treatment source; and,

D. Drug abuse councils to keep abreast of the latest development regarding drug abuse.

10. Program Interrelationships.

A. Relationship with Drug Testing Program. As called upon, the EAP staff will work with the drug testing program staff in the development and implementation of the drug testing program. However, EAP staff are not to be involved in the collection of urine samples or the initial reporting of drug test results. EAP efforts are to focus on counseling and rehabilitating drug-abusing employees, as well as on educating the workforce regarding drug abuse and its symptoms.

B. Relationship of the Supervisor. Supervisors have explicit expectations of their employees in terms of job performance and behavior. When supervisors are advised of confirmed employee drug use, they are required to refer the employee to an Employee Assistance Program and to initiate an appropriate personnel action. In those situations involving illegal drugs, except as provided in Section 5(b) of Executive Order 12564, disciplinary action is required to be initiated against employees who are found to use illegal drugs. Supervisors should work with the Employee Assistance Counselor to monitor the employee's progress during treatment and rehabilitation and take appropriate personnel action should the employee fail to remain drug-free.

C. Relationship with Labor Organizations. The support and active participation of labor organizations is a key element in the success of an employee assistance program. Therefore, where there are units of exclusive recognition, management should:

(1) Communicate to labor organizations a strong commitment to providing assistance to employees.

(2) Consult or negotiate, as appropriate, concerning the implementation of the EAP.

(3) Include union representatives in appropriate training and orientation programs to ensure a mutual understanding of program policy, referral procedures, and other program elements.

11. Recordkeeping and Reporting.

A. Counseling Records. Records on employees who have been referred for counseling will be maintained in a secure and confidential manner. Information on any drug abuse client will be released only to the management official empowered to recommend or take action, in accordance with the employee's consent to release, and for the reasons identified in section 8C above. Any information obtained by a supervisor from the counselor must be maintained, as with all employee records, in a strictly confidential manner. In addition, to the extent that counseling records include employee treatment records, they shall be maintained in accordance with Public Law 93-579 (Privacy Act), Public Law 93-282 and Title 42 CFR, Part 2 (Confidentiality of Client Records). Consequently, access to these records will be strictly limited. All appropriate steps, including necessary physical safeguards, will be taken to ensure against unauthorized disclosure.

B. Reports to OPM. The EAP Administrator will compile sufficient statistical and programmatic data to provide the basis for evaluating the extent of drug abuse problems and effectiveness of the assistance program. The EAP Administrator will also submit agency-wide reports to the Office of Personnel Management that contain data required by OPM to meet the statutory reporting requirements contained in P.L. 99-570.

12. Program Evaluation. The EAP Administrator and Coordinators will regularly evaluate their program to determine the effectiveness and efficiency of services. These evaluations will include: services to employees with drug abuse problems, referral procedures and effectiveness, supervisory training, employee orientation, reporting systems, availability and accessibility of EAP, records systems, outreach activities, staffing and qualifications procedures. Written evidence of program evaluations, identified deficiencies and correction plans will be available for review by the EAP Administrator. Documented modifications in the program's assessment and intervention services should be made based upon the findings of such evaluations.

NATIONAL
FEDERATION
OF FEDERAL
EMPLOYEES

NFFE

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STATEMENT FOR THE RECORD

BY

SANDRA THOMSON, Ph.D. RESEARCH BIOLOGIST

LOCAL 178, NATIONAL FEDERATION OF FEDERAL EMPLOYEES

Mr. Chairman and Committee Members:

My name is Sandra Thomson. I am a Ph.D. research biologist specializing in toxicology. At the present time I conduct studies at the Army's Chemical Research, Development and Engineering Center, Aberdeen Proving Ground, Maryland on chemical hazards that may be encountered by our soldiers. I am also a member of the National Federation of Federal Employees Local 178. Briefly I would like to describe my experience with the employee drug test program at my installation.

On March 13, 1986, I was notified of my selection for the Civilian Urinalysis Program (CUP) at Aberdeen's Edgewood Area and given 90 days to sign a form giving my consent to being tested for drug use on a random basis. Imposition of these tests was not based upon any prior reasonable suspicion of individual wrong-doing or any general problem at the Center. Instead the tests were applied to all those working in certain job categories. I was further told that failure to consent would result in revocation of the clearances needed for my career advancement and reassignment. Possible demotion, or dismissal could follow.

Before signing the consent form that abrogated our rights, my fellow employees and I were given an orientation session by Carol Bruce, Chief of Edgewood's Alcohol and Drug Control Office. The session consisted of a brief explanation of the program, a short demonstration of the field test unit and the distribution of some material supplied by its manufacturer. Little information on the laboratory test methods was provided in spite of the fact that many members of the audience were professionals and technicians who work with chemical procedures on a daily basis. Many members of the audience, including myself, asked questions on technical matters, administrative procedure, methodology, system reliability, and personnel policy. All were greeted with an adversarial reaction and few answers. The supervisors in my organization attended a similar briefing with similar results.

At the deadline for signing the consent form, my professional opinion was that the amount of technical information given was still insufficient to instill confidence in the testing procedures, especially in its protections against false positives. However, faced with the possible loss of my clearances, I did sign the consent form. I clearly noted my objections on the form (as did several of my coworkers), indicating that I was agreeing to be tested only under duress, with the threat of losing my job.

A short time later, my colleagues and I drafted a list of questions in writing on June 24, 1986, to Ms. T. Walz, Program Administrator for the Army Armaments, Munitions and Chemical Command, my center's parent organization. We followed up the list of questions with telephone requests for a response. Answers were promised; none ever arrived.

On July 31, 1986, I was summoned to give a sample. Upon arrival I was given a cup from an open, unsealed container. With the witness, Ms. L. Wheattley, observing, I filled the container. The cup was then labelled with my taped on social security number, sealed and given to a technician. At no time did anyone ask if I was taking any kind of medication. I asked if I could watch my sample's field test, but was told that this was not allowed because "the social security numbers on other samples were visible in the laboratory and my seeing them would violate the Privacy Act."

I was permitted to wait in the hallway for the results of my test. It was positive for cannabis (marijuana) on two repeats of the field test on the same sample. I asked the person handling the testing if I could be retested and was told that the existing sample would be sent to Fort Meade, North Carolina for confirmation. However, results from that test would not be available for ten to fifteen days.

Having little information on the nature and quality of the confirmation testing procedure and little faith in what I had seen of the field test, I took the advice of both the person in charge and my attorney, took leave and underwent a complete drug screen test at two different hospitals. They employed the rigorous procedures for sterile sample taking, direct labelling, handling, and testing which are used in acquiring evidence for courtroom use. Both tests were negative for all controlled substances, both returned results within twenty-four hours and both were performed at my expense.

Clearly, one of my primary concerns was that despite the fact that I asked for information regarding the procedures of the test, its reliability, and the consequences of various results several times before I signed the consent form, I never received it. Just as importantly, however, Army Regulation 600-85 requires that local commanders establish procedures and insure compliance with that regulation. When I asked to see the local implementing regulations and standard operating procedures, I was given drafts and told that these were in a "state of change, but were being used until procedures were finalized."

In my subsequent conversation with Lieutenant Colonel Kolch, Chemical Research, Development and Engineering Center Chief of Staff, I was told that no final procedures had been approved and that they were sorting out the procedures as they went. Clearly, the Aberdeen drug testing program was being carried out in an improvised, seat-of-the-pants fashion. As a toxicologist, I can tell you that such liberties are never tolerated in any clinical setting, even in work with small laboratory animals. To put it bluntly, we do not test rats the way I was tested for drug use. I submit that procedures involving human subjects in which their careers and reputations are at stake are as deserving of at least as much supervision and control as those carried out on guinea pigs.

Beyond the lack of local regulatory and procedural controls we met other problems. Army regulations require that all urine specimens will be shipped so that they will arrive at the confirming laboratory no later than three days after the sample is taken and that the laboratory will transmit the results within five duty days after receipt. In my case the lab report showed that my sample arrived at the laboratory seven days after my test and that the results were reported to my managers eleven days later. I was not informed until two days beyond that. Apparently, protracted delays, during which samples may be subject to chemical change, contamination or mishandling, are the rule.

While my sample and results languished, I existed under a cloud of suspicion and was subject to at least a temporary suspension at any time. I suffered a near total disruption to my professional performance, family life, and sleep. Eight days of this hell would have been enough, but twenty was beyond all reason and regulation.

Perhaps the most telling moment came for me when I received my final test results, which Army regulations say must be marked "FOR OFFICIAL USE ONLY" and be transmitted with the utmost privacy and discretion. Imagine my shock to find a ROUTINE-UNCLASSIFIED message containing not only my results, but also those of four other individuals identified by social security number. If you recall the care taken to protect the social security numbers attached to urine samples when I asked to see my field test, you will understand why I find it scandalous to permit their disclosure when juxtaposed to vastly more important results.

It is worthy of comment that the others' results that I was handed bore the notation: CANCELLED UPON RECEIPT, ENTRY ON CHAIN OF CUSTODY BUT BO BOTTLE. This meant that the contractor had received the paperwork on the sample, but the accompanying urine was missing. Further investigation revealed that this and other recordkeeping/sample handling problems were not uncommon in the contractor's dealings with the originating laboratory.

One of the worst aspects of the experience was the manner in which my colleagues and I were treated when we attempted to question the procedures employed in the drug testing program. Frequently we were told that we had nothing to fear from the test if we did not use drugs, with the implication being that if we questioned the program we must be drug abusers. One of my co-workers was prevented from asking questions about the testing procedure after she provided her sample. The person in charge said that the ninety days prior to signing the consent form had provided plenty of time for her to ask questions. You will recall that when we asked many questions, we received almost no answers. My co-worker was admonished, "You gave up your rights, now you play by our rules." She was distinctly told, "If you don't use drugs, you don't have a problem (with the test). If you use drugs, you do have a problem. Now do you have a problem?" My colleagues and I do not feel that we deserve to be treated in such an insulting manner.

Another co-worker, Dr. Steve Christesen, had an experience that in many ways was more wrenching than mine. He too was the victim of a false positive, but his clearance was temporarily suspended and he was physically removed from his laboratory. Instantly word of his "drug involvement" spread. Although he was completely exonerated locally within a few days, the experience was painful at best, especially when he learned that the reason cited for his test's problem was that the air conditioner in the drug test lab was not working.

Although my confirmatory test eventually showed that my sample was negative for all drugs, the anxiety created by the faulty testing procedures, inadequate information, and delyed results created an enormous hardship for myself and my family. I will probably never know what caused my false positive. Experts have told me that the type of test that I was subjected to could be thrown off by my menstrual condition, over-the-counter drugs, accidental contamination or a variety of other factors.

Once cleared, I next began a struggle with Aberdeen's command for an explanation, redress, and some improvements. My first step was to complain to the local Inspector General. The major outcome of that effort appears to have been a change of test site to a facility that a survey by our Center's own biochemical test experts branded woefully deficient. In addition, the test procedures were modified so that now it is impossible to find out any test results until long after it is too late to have yourself tested. Throughout my dealings with command, they gave the impression that I, and not the program, was considered to be the problem. This contrasted sharply with the support and trust given me by my colleagues and technical managers - a confidence which I will always cherish.

I next filed an agency grievance. Army grievance regulations provide that I shall have access to all records relevant to my problem. Verbal and written requests for information from the record and followups were ignored. Finally I had to resort to the Freedom of Information Act (at considerable expense) to get data concerning my own case.

Recently I learned that my grievance was rejected without any investigation by the US Army Civilian Appellate Review Agency in Columbia, MD. The reason given was that my grievance wasn't filed within 15 days of the event, meaning the drug test. The fact that my results took twenty days to reach me, that I was denied access to vital records for weeks following the event, and that many grieved conditions (such as the lack of Center regulations) persist make the Army's grievance system seem self-serving and farcical. have since turned to the courts to stave off a repeat of my test experience.

With regard to the recent regulations promulgated by the Office of Personnel Management, apart from my fundamental objection to the nature of this search, I consider them as punitive and subject to most of the same shortcomings found in the Army's effort. I particularly object to the proposed consent to the release of test information that must be signed prior to the administration of the test. It appears to be a before-the-fact confession. There also appears to be little room for due process that would allow the employee to enter evidence in his own behalf like the kind of drug test results that I obtained at the local hospitals. Indeed, in this entire drug test regimen, the employee is not confronted with any accusation or evidence against him until it is much too late to acquire evidence in his own behalf. His metabolism destroys his ability to clear himself.

Turning now to the Health and Human Services guidelines, it is my professional opinion that they are seriously flawed. Again, many of the Army program's problems are revisited. Notable is the lack of sterile containers needed to prevent bacterial contamination which can induce errors, especially in the screening tests. The overall matter of collection site personnel troubles me. Who are these people to be and what will be their training? In the CUP program, coworkers were drafted into this thankless task under threat of insubordination charges. Their levels of attentiveness, competence, and objectivity at performing this vital role were highly variable. In the new program, their role is to be expanded to include actual measurements of color, temperature, and signs of contaminants. There are other apparent shortcomings, such as security during transportation, labelling, and the retention of screening tests of the unreliable type that led to my difficulties.

In summary, I would like to reiterate my opposition both in principle and practice to the past and proposed programs. If the object of this program is to assess impairment, then the scientific literature clearly shows that it will not work. At best it will only indicate possible past exposure. It would be far better to look into bolstering the first line of abuse control - supervisor cognizance of his employee's actions. This might be supplemented in the most critical positions by non-invasive, job-tailored performance tests. At least then one could have reasonable cause to take steps and deal with the full spectrum of employee frailty: alcohol, mental or emotional upset, and physical distress as well as drugs.

STATEMENT OF W. GRAHAM CLAYTOR, JR.
ON BEHALF OF NATIONAL RAILROAD PASSENGER CORPORATION
BEFORE THE SENATE JUDICIARY COMMITTEE

On behalf of Amtrak, I appreciate this opportunity to provide comments to the Senate Judiciary Committee on the subject of drug-testing legislation for the transportation industry.

Amtrak strongly supports legislation that would authorize random testing of railroad employees holding safety-sensitive positions to determine whether there has been improper use of alcohol and drugs. Amtrak believes that the use of alcohol and drugs by employees performing safety-sensitive functions is the single most serious safety problem confronting the railroad industry. While programs exist which allow for testing of certain railroad employees under certain circumstances, these programs have not had the deterrent effect that is required to reduce significantly the use of alcohol and drugs by key employees. Amtrak believes that the most effective and reasonable means of reducing this risk is the institution of a program of random testing of employees whose acts or omissions can lead to accidents resulting in death, injury, or major property damage.

Amtrak and many other railroads have in place an Employee Assistance Program (EAP) that provides confidential professional counseling and treatment for drug and/or alcohol abuse. Amtrak's EAP has been in existence since 1975. Effective March 1, 1986, Amtrak revised its EAP policy to include a "Rule G waiver" provision. Under that provision, an employee found to be in violation of Rule G of Amtrak's Operating Rules prohibiting the use of drugs or alcohol may, if a first offender, waive investigation of the Rule G charge and any disciplinary action by choosing to enroll in the EAP. This is essentially the program generally described as "Operation Red Block" in which the operating unions and the carriers jointly participate. Amtrak has recently signed Red Block agreements with the United Transportation Union (UTU, representing Conductors and Assistant Conductors) and the Brotherhood of Locomotive Engineers (BLE, representing Locomotive Engineers).

Although Operation Red Block and Employee Assistance Programs contribute to alleviating the use of alcohol and drugs by employees, these programs alone are insufficient to address the very serious risks that drug and alcohol use by railroad employees create. There must be a more stringent method for stopping substance abuse by those whose activities involve the safety of the public.

To address this problem, the Federal Railroad Administration (FRA) on July 31, 1985, issued regulations applicable to employees covered by the Hours of Service Act requiring post-accident testing in major accidents and authorizing toxicological testing when there is reasonable cause to suspect drug or alcohol use. Important rule violations, among other things, provide such reasonable cause. The regulations also provide for testing of applicants for covered positions.

Again, these regulations are helpful but not sufficiently broad to solve this very serious problem. In the case of the January 4th accident at Chase, Maryland, an experienced and specially trained Conrail supervisor had talked with both members of the Conrail crew before they departed the terminal and did not detect any indication of drug use; however, in post-accident testing, both crew members had positive results for drugs. "Reasonable cause" testing must be continued, but it is inadequate alone to detect use of drugs that have subtle behavioral effects. If we are to provide the safety to which the public is entitled, a fair system of random testing for alcohol and drug use among all safety-related employees is essential.

Accordingly, I urge Congress to pass legislation requiring the Department of Transportation to promulgate regulations calling for random drug and alcohol testing of rail employees whose duties most directly affect public safety. Amtrak is confident that an accurate and minimally intrusive drug-testing program can be developed by the Secretary of Transportation, pursuant to careful statutory guidance concerning the limits of the program. Amtrak believes that the statutory provisions that are annexed to the prepared testimony of Erwin N. Griswold, submitted to this Committee at its hearing on May 12, would provide adequate guidance and safeguards for such regulations. I fully support and agree with Mr. Griswold's opinion that such provisions are constitutional and would be upheld by the United States Supreme Court.

GRAND LODGE
FRATERNAL ORDER OF POLICE
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502 451 2700

RICHARD A. BOYD
NATIONAL PRESIDENT

CHARLES R. ORMS
NATIONAL SECRETARY

May 20, 1987

Honorable Joseph Biden
United States Senate Judiciay Committee
Washington, DC 20510

ATTN: Scott Green

Dear Senator Biden,

The Grand Lodge, Fraternal Order of Police, the nation's largest law enforcement organization, would like to include as part of the permanent record of the hearings on "DRUG TESTING", the stand of the Fraternal Order of Police. I do appreciate your interest in asking that our opinion be included in the record.

(1) The FOP see NO substantiated facts or experience which demand that ALL law enforcement officers be drug tested. This seems to be an hysteria approach from the Executive Branch of government.

(2) ANY type of drug testing program should be put in place ONLY after an agreement on all aspects of the the program has been reached with the individual employee, or employee's organization.

(3) The FOP is opposed to RANDOM drug testing, or random testing by assignment for veteran officers. The FOP would stand behind the officer's right to protection from "unreasonable search and seizure".

(4) The FOP would support drug testing as part of a yearly physical examination as long as the physical is scheduled, and the main purpose of the physical is a means of preventive medicine to monitor the health of the officer.

(5) The FOP would support a "drug testing" program for initial hiring, and for promotional testing, but we would not support testing on a random basis for ANY probationary employee, neither employment nor promotion probation. The FOP does NOT support testing for assignment application.

(6) The FOP would support "drug-testing" on a case-by-case basis, after a supervisor's "reasonable suspicion" of the actions of an on-duty officer, would cause an ordinary person to deduct that an officer should be tested for the influence of alcohol or drugs.

Richard A Boyd - National President

PUBLIC EMPLOYEE DEPARTMENT
AFL-CIO

GERALD W. McENTEE *President*   KENNETH T. BLAYLOCK *Secretary-Treasurer*

STATE LOCAL DIVISION   FEDERAL POSTAL DIVISION

Executive Vice Presidents

Albert Shanker   Angelo Fosco
John J. Sweeney   Vincent R. Sombrotto

[illegible]   [illegible]

May 15, 1987

Honorable Joseph R. Biden, Jr., Chairman
Committee on the Judiciary
United States Senate
SD-224 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

On May 13, 1987 the Judiciary Committee met to debate and consider the issue of mandatory drug testing. The Public Employee Department (PED), AFL-CIO, is made up of 30 international unions representing 3.5 million federal, state and local public employees throughout the nation. PED policy stands in firm opposition to mandatory drug testing, and we request that this letter presenting our views on the issue be included in the Committee's record.

The U.S. Constitution protects against unreasonable searches and seizures and self-incrimination, guarantees freedoms of association and expression, and the right to due process of law. While court decisions on mandatory random drug testing have presented contradictory opinions, numerous challenges continue to move through the judicial process. We fully expect that, when the issue is raised before the U.S. Supreme Court, constitutional challenges to mandatory random drug testing will be upheld.

Beyond the constitutional issues, there are serious problems with the reliability of testing procedures. Many of the tests used to screen workers for drugs are extremely inaccurate, especially the ones that are used in volume. False-positives are 25 percent or higher for many of these tests, and the results of tests can be affected by the use of common substances such as cough syrup, caffiene and other common chemicals. In addition, many of the laboratories that perform drug tests also often have very high false-positive error rates. According to the Centers for Disease Control (CDC), some labs have false-positive error rates as high as 66 percent.

Mandatory random drug testing is a workers' rights issue. The rights of the overwhelming majority of employees who are drug-free, as well as the rights of a drug-abusing worker need to be considered in dealing with this issue. Drug abuse is an illness. Those suffering from this disease need treatment and not punishment. At the same time, addicted individuals can pose health and safety hazards on the job. The PED firmly believes that the collective bargaining process is the best means for reconciling these competing interests and developing effective and balanced programs.

Such programs are developed and implemented cooperatively by employers together with their workers. They are founded primarily upon education and prevention of addiction, they safeguard employee privacy and reject arbitrary and illegal searches, and they provide nonpunitive rehabilitation-oriented responses for those whose drug use has, in fact, impaired their job performance. Many PED affiliates have, through the collective bargaining process, already developed such cooperative programs. Our experiences show them to be fair as well as effective.

For all these reasons, we urge you to reject mandatory random drug testing during the Committee's deliberations over the issue. We thank you for your consideration of our views, presented on behalf of the 3.5 million public employees we represent.

Sincerely,

Al Bilik
Al Bilik
Executive Director
State/Local Division

John F. Leyden
John F. Leyden
Executive Director
Federal/Postal Division

cc: Members, Committee
on the Judiciary

Report to Congress

Report on Title VI of Public Law 99-570

The Federal Employee Substance Abuse Education and Treatment Act of 1986

April 1987

United States
Office of
Personnel
Management

Personnel Systems
and Oversight
Group

REPORT TO CONGRESS ON TITLE VI OF PUBLIC LAW 99-570, THE FEDERAL EMPLOYEE SUBSTANCE ABUSE EDUCATION AND TREATMENT ACT OF 1986

INTRODUCTION

The U.S. Office of Personnel Management (OPM) is required by P.L. 99-570, to report to Congress on drug and alcohol abuse programs in the Federal Government. Under §7363 of the Act, these reports are to include information on:

- the programs and services provided in the Federal sector,
- the training given to agency supervisors in recognizing and dealing with employee substance abuse problems,
- the training and qualifications required of personnel providing drug and alcohol abuse counseling services,
- the level of participation in programs designed to assist employees in overcoming substance abuse problems, and
- other related activities which OPM considers appropriate.

This first report is submitted, as required by §7363, within six months of the date of enactment of P.L. 99-570 and will be submitted annually hereafter. The data in the report relating to levels of employee participation, program costs and program effectiveness are based on information submitted to OPM from Federal agencies covered by the Act. This data reflects agency activity for FY '86.

I. BACKGROUND

Since the passage of the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616) and the Drug Abuse and Treatment Act of 1972 (P.L. 92-255) Federal agencies have been authorized to provide drug and alcohol counseling and treatment programs to civilian employees. Last year Congress enacted P.L. 99-570 which requires Federal agencies to develop and maintain appropriate prevention, treatment and rehabilitation programs and services for drug abuse, alcohol abuse and alcoholism among civilian employees. The Act also requires OPM, in cooperation with the President, the Department of Health and Human Services, and other agencies, to develop drug and alcohol abuse programs for Federal employees. OPM's policies on drug and alcohol abuse programs and services for Federal employees are located in the Code of Federal Regulations (5 C.F.R. Part 792) and Federal Personnel Manual Chapter 792. These policies address agency requirements for establishing and maintaining drug and alcohol abuse counseling and assistance programs for Federal employees. Executive Order 12564 establishes the President's program for a drug free Federal workplace. Pursuant to the Order, OPM issued policy guidance in Federal Personnel Manual Letter 792-16 (November 28, 1986) which requires covered agencies to establish Employee Assistance Programs (EAPs) emphasizing education, counseling and rehabilitation. The guidance also provides agencies with a model EAP in support of a drug free Federal workplace.

II. DESCRIPTION OF FEDERAL DRUG AND ALCOHOL ABUSE PROGRAMS

Functions:

The basic functions of an agency Employee Assistance Program relating to alcohol and drug abuse are:

- Problem identification and short term counseling.
- Referral for treatment and rehabilitation to an appropriate community service or professional resource.
- Follow-up to aid the employee in achieving an effective readjustment to his or her job during and after treatment.

Operation:

Each agency EAP program has an administrator, coordinator or other official with responsibility for its overall operation. Employee counseling specialists work under the direction of the program administrator and have responsibility for providing day-to-day employee assistance and counseling services. EAP programs and services generally are available to all Federal employees, including those located in field office installations. Depending on the size and location of the installation, agencies operate EAPs either through in-house programs or contracts with private sector providers of employee assistance services.

In-House

Agencies with in-house programs usually hire full-time program administrators/coordinators to operate their EAP programs. In smaller agencies these duties are sometimes assigned collaterally to professional staff members of the personnel office such as employee relations/counseling specialists.

Recognized advantages of in-house programs are that the EAP program administrators and counselors are familiar with the agency's organizational structure, goals and operating systems. In this respect, in-house counselors are usually well informed of employee needs and attuned to management priorities. In addition, it is cost-effective for some small agencies to assign EAP responsibilities to their personnel or employee health units as collateral duties.

Contract

Agencies often find it cost-effective to contract for EAP services. In some cases the agency may lack in-house expertise or not employ enough employees to justify a resident counselor. Single agency contracts for employee counseling and assistance services can be established with private or non-profit organizations. Multi-agency contracts, referred to as Cooperative Interagency Employee Counseling Services Programs or Consortia, are arrangements in which a number of agencies combine their resources to provide counseling services for their employees through a joint contract. The basic services under these arrangements are similar to any EAP (i.e., short term counseling to identify employee problems, supervisory training, employee orientations and assistance to employees and supervisors during and after treatment to return the employee to work).

The advantages of contract and consortium arrangements are similar. Both engender increased employee perceptions of confidentiality. These arrangements also provide for well qualified counselors who are specialists in their field. Because of their size and expertise, many contract and consortium providers can also offer additional services to agency employees and managers such as recognizing the symptoms of drug dependency, educational material on the dangers of drug and alcohol abuse and family counseling as appropriate. In addition, many contract and consortium arrangements are cost effective because they can be tailored specifically to the agency's needs and realize economies of scale (especially consortium arrangements) because agency employees who utilize services are usually part of a larger pool. Most contract/consortium arrangements allow the agency to quickly terminate the arrangement if performance is unsatisfactory.

Costs:

Total government-wide operating costs for employee assistance programs covering drug, alcohol, emotional and other problems are estimated to be $17,293,450 for FY '86, an increase of more than 40% over FY '85. As with other data provided in the report, this cost estimate is derived from data submitted to OPM from agencies subject to P.L. 99-570. These agencies each reported separate estimated costs for their EAP programs (see listing in Chart 1 of agency-specific cost and employee participation data). In viewing the cost data, it should be pointed out that (1) all costs associated with agency in-house programs are not easily identified because they usually are not separate budget line items, whereas contract costs are specifically identified and (2) each agency's resources are allocated differently depending on the organizational structure, size, composition, etc., and the cost figures provided reflect these differences to some extent. Therefore, agencies with similar employee populations or utilization rates may have somewhat different costs reported for their drug and alcohol abuse programs.

Federal agencies pay for the cost of their EAP programs from regular appropriations. Additional resources needed for EAP enhancements are being absorbed by agencies.

III. LEVEL OF EMPLOYEE PARTICIPATION IN DRUG AND ALCOHOL PROGRAMS

Drug Programs:

Agencies reported that 3,690 employees were counseled for drug abuse in FY '86. Employee cases in this category involve problems with all drugs except alcohol. This includes illegal and legal (prescription, over-the-counter, etc.) drugs. Of these cases, 2,111 employees (57%) successfully availed themselves of EAP services (i.e., completed counseling, sought rehabilitation and treatment, and performed acceptably following completion of the EAP program). In 706 cases (19%) agencies reported that employees were not helped by referral to an EAP program (i.e., the employee did not resume acceptable performance following counseling and/or treatment). In 873 cases (24%), agencies reported that the employees who sought counseling and further treatment during FY '86 were still enrolled in the program and therefore it is too early to tell whether or not they have been helped. The number of employees counseled for drug abuse has risen by an average of 451 cases for each of the last five years. This is reflected in the overall participation or penetration rate of employees who avail themselves of EAP services for drug problems. This rate was .17 of one percent in FY '86, up from .08 in FY '81.

Of the 3,690 cases reported for FY '86, 2,083 of the cases (56%) resulted from employee self-referral to EAPs. Forty-four percent, or 1,607, of cases involved management referral. These percentages have held constant since 1984.

Alcohol Programs:

Agencies reported that 13,167 employees were counseled for alcoholism during FY '86. Of these, 8,187 (62%) who enrolled during FY '86 performed acceptably following completion of the EAP program and 1,975 (15%) did not. At the end of the year 3,005 employees (23%) were still enrolled and agencies had not determined whether or not they had been helped. Alcoholism cases have increased just slightly over the past five years. The penetration rate is now .60%, up from .59% in 1981.

Of the 13,167 cases reported for FY '86, 50% (6,543) involved self-referral and 50% (6,624) involved referrals by management. These percentages are the same as FY '84 and '85 figures where the split was also 50%–50%.

Chart 2 contains a breakdown by agency of employee participation in EAP programs because of drug and alcohol problems.

NOTE: In reporting employee participation rates in EAP programs many agencies pointed out that some employees choose to seek private counseling and rehabilitation for their problems. These cases are not reflected in the data in this report and are difficult to estimate.

IV. TRAINING AND QUALIFICATIONS REQUIRED OF EAP PERSONNEL

Agency EAP Personnel:

Program administrators, coordinators and counselors who provide EAP services must be able to identify employee problems relating to alcohol or drug abuse, refer employees for treatment to appropriate community or private services, assist employees in their rehabilitative efforts and return to satisfactory performance and assist employees in maintaining abstinence from future substance abuse. More specifically, EAP personnel should possess qualifications and training in the following areas:

EAP Program Administrators/Coordinators

- Able to effectively implement the agency's EAP policy and program, including the implementation of programs for counseling and assisting employees with alcohol and drug abuse problems.

- Able to interpret and apply the laws, regulations and procedures which govern Federal EAP and related programs/services.
- Able to determine appropriate supervisory training and other activities needed to educate and inform the workforce about drugs and alcohol and the symptoms of substance abuse.
- Able to develop and maintain counseling capability (through agency personnel or other counseling resources, including contracting out).
- Able to establish liaison with community education, treatment and rehabilitation facilities.
- Able to evaluate the program and report to management, and OPM as appropriate, on results and effectiveness.

Employee Assistance Counselors

- Able to communicate effectively with employees, supervisors and managers concerning substance abuse and its symptoms and consequences.
- Knowledgeable about community resources for treatment and rehabilitation of substance abusers, including information on fees and payment schedules.
- Able to discuss drug treatment and rehabilitation insurance coverage available to employees through the Federal Employee Health Benefits Program.
- Able to distinguish the occasional user from the addicted user and to suggest the appropriate treatment based on that information.
- Able to provide training and education on drug and alcohol abuse to employees, supervisors, union representatives, etc.

- Knowledgeable about laws, regulations and procedures governing Federal EAP programs and personnel actions that arise in the course of assisting employees who have drug and alcohol problems.

Although most agencies reported that they did not have standardized qualifications or training requirements for EAP program personnel, they reported that approximately three quarters of their EAP officials have either counseling or directly related experience or advanced academic degrees in fields related to counseling such as mental health, psychology and social work. In addition, some agencies utilize nurses or medical doctors in their EAP functions. The remaining quarter of agency-employed EAP officials have received on the job training in counseling supplemented by courses, seminars and other training.

Contractor and consortium providers generally have established qualification, training and experience requirements for their EAP personnel. These requirements usually include an advanced academic degree and directly related experience in counseling employees with drug, alcohol and emotional problems.

OPM Training Programs and Initiatives:

For several years OPM has provided a training course entitled "Administering the Employee Counseling Services Program." This four day course is given three times each year and is attended by Federal agency employees who have been newly appointed or in need of refresher training in EAP programs. This course is revised periodically to include the latest information and techniques related to dealing effectively with employees who have alcohol and drug abuse problems.

OPM also holds quarterly meetings of the Interagency Advisory Group Committee on Alcoholism and Drug Abuse and frequently features presentations by national experts on drug and alcohol abuse such as officials from the National Institute of Drug Abuse. These meetings are open to and regularly attended by agency EAP officials as well as personnelists with related responsibilities. Much of the discussion in both these sessions and the OPM training course for EAP officials focuses on recognizing the symptoms of drug and alcohol abuse.

V. SUPERVISORY TRAINING

Agency Efforts:

All agencies report they are providing training to their supervisors and managers on how to deal with employees who exhibit work performance or conduct problems that may reflect alcohol or drug abuse. This training normally covers:

- Identification of performance or conduct deficiencies and initial counseling of employees on these problems.

- Referral of employees to EAP programs, including adherence to confidentiality and privacy requirements, when managers suspect that the employee's performance or misconduct problems may be related to drugs or alcohol.

- Principles of counseling and rehabilitation including techniques for supervisors to assist employees in returning to the workplace.

- Explanation of supervisory responsibilities under laws, OPM policies, and other external requirements governing employee drug and alcohol abuse programs.

- Practical advice from other supervisors on effective techniques and methods for dealing with employees experiencing substance abuse problems.

Most agencies are incorporating anywhere from 3 to 6 hours of this type training into their training courses for new supervisors and managers. Some agencies are also offering specific workshops and short training sessions on various aspects of alcohol and drug abuse problems to their supervisors and managers. As a result of the recent issuance of Executive Order 12564 on a drug free Federal workplace and the passage of P.L. 99-570, a number of agencies are planning to enhance their supervisory/managerial training programs dealing with drug and alcohol abuse, with particular emphasis on more timely referral to EAP programs of employees who are suspected of substance abuse-related problems.

OPM Efforts:

To assist agencies, OPM recently developed a training course for managers and supervisors on identifying employees with drug abuse problems. The course also focuses on how to refer employees for further counseling and assistance, as well as explaining major aspects of OPM's policy guidance implementing E.O. 12564. This course was piloted in January 1987 and has been distributed for nationwide OPM training delivery. Also, OPM is developing modules for agencies' internal drug and alcohol training programs which will be made available in the near future. Beyond formal training and development, OPM is available to provide assistance to agencies in developing their own training programs.

VI. EVALUATION OF DRUG AND ALCOHOL ABUSE PROGRAMS

Agency Efforts:

EAP administrators and coordinators are responsible for evaluating agency drug and alcohol programs to determine their effectiveness. These evaluations normally will include: services to employees with drug and alcohol abuse problems, referral procedures, supervisory training, employee orientation, agency reporting systems, availability and accessibility of EAPs, agency records systems, outreach activities, and the effectiveness of agency personnel actions. Modifications in the agency's EAP are frequently made based upon the findings of evaluations of the program's effectiveness. As part of their program review efforts, agencies compile and submit data to OPM to meet statutory reporting and evaluation requirements.

OPM Efforts:

Since 1981 OPM has compiled an annual report on agencies' EAP activities. This report has been used by OPM to monitor the nature, level of activity and effectiveness of agency programs. P.L. 99-570 now requires OPM to report annually to Congress on Federal drug and alcohol abuse programs and this report is the first in the series. To expand its reporting efforts, OPM has undertaken the development of a nationwide evaluation plan for reviewing agency employee assistance programs. OPM intends to give special emphasis to these reviews in conducting its ongoing program of personnel management evaluation. The basic coverage of the reviews will include:

- Assessing whether the employee assistance program is supported by management as evidenced by current policy statements, comprehensiveness of internal program instruction and training, resources allocated to the program and the qualifications of personnel employed to operate the program.

- Assessing the accessibility of the program and acceptance of the program by employees as well as the number of employee referrals by management.

- Determining the effectiveness of EAP and related programs in assisting employees to end their substance abuse and improve job performance and/or conduct.

VII. CONCLUSIONS

A great deal of activity is taking place at this time in terms of Federal sector substance abuse programs. This level of activity is likely to increase as greater emphasis by agencies is placed on enhancing programs to assist employees with drug and alcohol problems.

This first report is based, in large part, on the data and experience of agency EAP programs in place prior to enactment of P.L. 99-570. Future reports will more fully reflect the impact of P.L. 99-570 as well as E.O. 12546. In addition, OPM is expanding its efforts to monitor agency employee assistance programs. These efforts are expected to yield additional insights into the nature and effectiveness of Federal programs and services designed to assist employees with drug and alcohol abuse problems.

APPENDICES

Chart I — Usage and Costs of Agency EAP Programs*
FY 1986

Agency	Total Employees	Alcohol Cases	Drug Cases	Other Cases	Total Cases	Total Operating Costs
EXECUTIVE DEPARTMENTS						
AGRICULTURE	109,753	389	147	2,881	3,417	$643,910
AIR FORCE	242,373	1,883	310	401	2,594	$1,482,300
ARMY	457,285	2,702	583	6,021	9,306	$5,000,000
COMMERCE	31,532	110	39	693	842	$294,118
DEFENSE	67,625	442	99	1,176	1,717	$590,700
EDUCATION	4,672	4	3	36	43	$23,017
ENERGY	16,647	93	30	463	586	$216,000
HEALTH & HUMAN SERVICES	127,105	688	198	3,904	4,790	$1,899,313
HOUSING & URBAN DEVELOPMENT	11,231	24	8	236	268	$91,360
INTERIOR	65,901	222	50	1,343	1,615	$596,750
JUSTICE	66,418	297	37	1,942	2,276	$773,082
LABOR	17,984	70	21	323	414	$157,015
NAVY	309,541	2,344	842	4,215	7,401	$734,924
STATE	22,565	345	41	1,100	1,486	N/A
TRANSPORTATION	61,281	235	133	2,037	2,405	$767,941
TREASURY	139,153	523	141	3,997	4,661	$916,192
INDEPENDENT AGENCIES						
ACTION	264	4	0	8	12	$3,227
ADMIN OFFICE OF THE U.S. COURTS	624	0	0	2	2	$7,600
BD OF GOV, FED RESERVE SYS	1,520	5	0	61	66	$22,074
COMMOD FUTURES TRADING COMM	492	1	1	0	2	800
CONSUMER PROD SAF COMM	546	1	2	3	6	$8,000
ENVIRONMTL PROTECT AGENCY	14,000	30	9	630	669	$200,000
EQUAL EMPL OPP COMM	3,005	5	2	9	16	$12,477
EXPORT-IMPORT BANK	300	5	0	4	9	$5,588
FARM CRED ADMIN	517	1	0	0	1	N/A
FED COMMUNICATN COMMISSION	1,802	3	1	16	20	$21,624
FED DEPOSIT INSURANCE CORP	8,966	72	32	545	649	$182,000
FED ELECT COMM	230	1	0	1	2	$2,000
FED EMERGENCY MGMT AGENCY	2,018	5	1	65	71	$20,000
FED HOME LOAN BANK BOARD	864	6	4	70	80	$29,700
FED LABOR RELATION AUTH	260	2	0	3	5	$4,155
FED MARITIME COMMISSION	200	3	0	6	9	$3,344
FED MEDIATION AND CONCIL	320	1	0	7	8	$1,439
FED TRADE COMMISSION	1,168	1	1	5	7	$4,633
GENERAL SERVICE ADMIN.	23,057	125	24	160	309	$93,000
INTER-AMERICAN FOUNDATION	63	0	0	0	0	$1,095
INTERNATIONAL TRADE COMM	487	2	1	3	6	$6,612
INTERSTATE COMMERCE COMM	742	5	1	1	7	$2,718
MERIT SYSTEMS PROTECT BOARD	315	1	1	2	4	$3,150

INDEPENDENT AGENCIES

Agency	Total Employees	Alcohol Cases	Drug Cases	Other Cases	Total Cases	Total Operating Costs
NATL AERO SPACE ADMIN	21,883	173	40	1,091	1,304	$399,661
NATL CAPITOL PLANNING COMM	45	0	0	0	0	$0
NATL CREDIT UNION ADMIN	631	1	1	2	4	$2,000
NATL ENDOWMENT FOR THE HUMAN	255	1	0	7	8	$5,903
NATL GALLERY OF ART	763	24	4	25	53	$32,622
NATL GUARD	49,856	171	25	133	329	$105,575
NATL LABOR RELATIONS BD	2,383	2	1	7	10	$1,920
NATL SCIENCE FOUNDATION	1,180	3	0	8	11	N/A
NATL TRANS SAFETY BD	319	0	0	4	4	$6,875
NUCLEAR REG COMMISSION	3,644	30	5	20	55	$75,000
OCC SAFETY & HLTH RVW COMM	73	0	0	3	3	$1,023
OFFICE OF MGMT AND BUDGET	535	1	0	5	6	N/A
OFFICE OF PERSONNEL MGMT	6,142	11	6	84	101	$48,308
OFFICE OF THE SPECIAL COUNSEL	83	0	0	0	0	$3,900
OVERSEAS PRIV INVEST CORP	130	0	0	2	2	$8,000
PANAMA CANAL COMMISSION	8,438	100	32	2	134	$88,817
PEACE CORPS	570	0	0	1	1	N/A
RAILROAD RETIREMENT BOARD	1,601	1	0	71	72	$17,235
SECURITIES & EXCHANGE COMM	2,153	5	4	19	28	$2,854
SELECT SERV SYS	112	1	1	1	3	$1,414
SMALL BUSINESS ADMIN	5,909	10	1	63	74	$43,559
SMITHSONIAN INSTITUTION	5,500	109	26	104	239	$29,018
SOLDIERS' & AIRMEN'S HOME	1,056	0	0	0	0	N/A
TENNESSEE VALLEY AUTH	30,589	240	92	487	819	$397,552
U.S. INFORMATION AGENCY	4,511	35	5	308	348	$60,000
VETERANS ADMIN	222,055	1,508	654	4,313	6,475	$824,124

LEGISLATIVE BRANCH

Agency	Total Employees	Alcohol Cases	Drug Cases	Other Cases	Total Cases	Total Operating Costs
GENERAL ACCOUNTING OFFICE	5,100	11	3	128	142	$144,000
GOVERNMENT PRINTING OFC	5,292	40	13	262	315	$62,895
LIBRARY OF CONGRESS	4,809	36	15	224	275	$105,171
U.S. TAX COURT	311	4	0	22	26	$4,166
TOTALS	2,196,754	13,167	3,690	39,765	56,622	$17,293,450

* THE COST ESTIMATES STATED HERE ARE STRICTLY AGENCY COSTS AND DO NOT REFLECT EMPLOYEE COSTS FOR COUNSELING/TREATMENT/REHABILITATION.

N/A—COST NOT AVAILABLE.

Chart II — Level of Employee Participation in Agency EAP Programs
FY 1986

Agency	Total Employees	Alcoholism					Drug Abuse				
		Cases	Pene-Tration	No. Helped	Self Refer	Mgmt. Refer	Cases	Pene-Tration	No. Helped	Self Refer	Mgmt Refer
EXECUTIVE DEPARTMENTS											
AGRICULTURE	109,753	389	0.35	233	268	121	147	0.13	73	106	41
AIR FORCE	242,373	1,883	0.78	1,193	594	1,289	310	0.13	181	115	195
ARMY	457,285	2,702	0.59	1,918	1,634	1,068	583	0.13	393	374	209
COMMERCE	31,532	110	0.35	79	41	69	39	0.12	23	19	20
DEFENSE	67,625	442	0.65	273	208	234	99	0.15	53	52	47
EDUCATION	4,672	4	0.09	1	3	1	3	0.06	2	1	2
ENERGY	16,647	93	0.56	67	37	56	30	0.18	16	19	11
HEALTH & HUMAN SERVICES	127,105	688	0.54	463	363	325	198	0.16	111	99	99
HOUSING & URBAN DEVELOPMENT	11,231	24	0.21	14	13	11	8	0.07	5	3	5
INTERIOR	65,901	222	0.34	128	137	85	50	0.08	28	37	13
JUSTICE	66,418	297	0.45	192	169	128	37	0.06	18	17	20
LABOR	17,984	70	0.39	39	36	34	21	0.12	8	11	10
NAVY	309,541	2,344	0.76	1,109	1,144	1,200	842	0.27	407	461	381
STATE	22,565	345	1.53	225	40	305	41	0.18	27	26	15
TRANSPORTATION	61,281	235	0.38	176	95	140	133	0.22	80	46	87
TREASURY	139,153	523	0.38	349	259	264	141	0.10	87	94	47
INDEPENDENT AGENCIES											
ACTION	264	4	1.52	4	3	1	0	0.00	0	0	0
ADMIN OFFICE OF THE U.S. COURTS	624	0	0.00	0	0	0	0	0.00	0	0	0
BD OF GOV, FED RESERVE SYS	1,520	5	0.33	4	4	1	0	0.00	0	0	0
COMMOD FUTURES TRADING COMM	492	1	0.20	1	1	0	1	0.20	0	0	1
CONSUMER PROD SAF COMM	546	1	0.18	1	1	0	2	0.37	1	1	1
ENVIRONMTL PROTECT AGENCY	14,000	30	0.21	22	16	14	9	0.06	5	5	4
EQUAL EMPL OPP COMM	3,005	5	0.17	5	3	2	2	0.07	2	2	0
EXPORT-IMPORT BANK	300	5	1.67	3	1	4	0	0.00	0	0	0
FARM CRED ADMIN	517	1	0.19	0	1	0	0	0.00	0	0	0
FED COMMUNICATN COMMISSION	1,802	3	0.17	1	0	3	1	0.06	0	1	0
FED DEPOSIT INSURANCE CORP	8,966	72	0.80	47	59	13	32	0.36	22	23	9
FED ELECT COMM	230	1	0.43	0	0	1	0	0.00	0	0	0
FED EMERGENCY MGMT AGENCY	2,018	5	0.25	4	3	2	1	0.05	1	0	1
FED HOME LOAN BANK BOARD	864	6	0.69	4	4	2	4	0.46	3	2	2
FED LABOR RELATION AUTH	260	2	0.77	2	0	2	0	0.00	0	0	0
FED MARITIME COMMISSION	200	3	1.50	2	1	2	0	0.00	0	0	0
FED MEDIATION AND CONCIL	320	1	0.31	1	0	1	0	0.00	0	0	0
FED TRADE COMMISSION	1,168	1	0.09	1	1	0	1	0.09	1	1	0
GENERAL SERVICE ADMIN.	23,057	125	0.54	53	52	73	24	0.10	12	17	7
INTER-AMERICAN FOUNDATION	63	0	0.00	0	0	0	0	0.00	0	0	0
INTERNATIONAL TRADE COMM	487	2	0.41	1	1	1	1	0.21	1	0	1
INTERSTATE COMMERCE COMM	742	5	0.67	2	1	4	1	0.13	0	0	1
MERIT SYSTEMS PROTECT BOARD	315	1	0.32	1	1	0	1	0.32	1	1	0

Agency	Total Employees	Alcoholism Cases	Alcoholism Pene-Tration	Alcoholism No Helped	Alcoholism Self Refer	Alcoholism Mgmt Refer	Drug Abuse Cases	Drug Abuse Pene-Tration	Drug Abuse No Helped	Drug Abuse Self Refer	Drug Abuse Mgmt Refer
INDEPENDENT AGENCIES											
NATL AERO SPACE ADMIN	21,883	173	0.79	117	128	45	40	0.18	20	19	21
NATL CAPITOL PLANNING COMM	45	0	0.00	0	0	0	0	0.00	0	0	0
NATL CREDIT UNION ADMIN	631	1	0.16	1	1	0	1	0.16	0	1	0
NATL ENDOWMENT FOR THE HUMAN	255	1	0.39	1	1	0	0	0.00	0	0	0
NATL GALLERY OF ART	763	24	3.15	14	11	13	4	0.52	0	2	2
NATL GUARD	49,856	171	0.34	114	76	95	25	0.05	10	9	16
NATL LABOR RELATIONS BD	2,383	2	0.08	0	0	2	1	0.04	1	1	0
NATL SCIENCE FOUNDATION	1,180	3	0.25	3	3	0	0	0.00	0	0	0
NATL TRANS SAFETY BD	319	0	0.00	0	0	0	0	0.00	0	0	0
NUCLEAR REG COMMISSION	3,644	30	0.82	22	26	4	5	0.14	2	5	0
OCC SAFETY & HLTH RVW COMM	73	0	0.00	0	0	0	0	0.00	0	0	0
OFFICE OF MGMT AND BUDGET	535	1	0.19	1	1	0	0	0.00	0	0	0
OFFICE OF PERSONNEL MGMT	6,142	11	0.18	6	4	7	6	0.10	4	2	4
OFFICE OF THE SPECIAL COUNSEL	83	0	0.00	0	0	0	0	0.00	0	0	0
OVERSEAS PRIV INVEST CORP	130	0	0.00	0	0	0	0	0.00	0	0	0
PANAMA CANAL COMMISSION	8,438	100	1.19	4	43	51	32	0.38	3	13	19
PEACE CORPS	570	0	0.00	0	0	0	0	0.00	0	0	0
RAILROAD RETIREMENT BOARD	1,601	1	0.06	0	1	0	0	0.00	0	0	0
SECURITIES & EXCHANGE COMM	2,153	5	0.23	4	3	2	4	0.19	2	2	2
SELECT SERV SYS	112	1	0.89	1	0	1	1	0.89	0	0	1
SMALL BUSINESS ADMIN	3,909	10	0.26	7	6	4	1	0.03	1	0	1
SMITHSONIAN INSTITUTION	5,500	109	1.98	81	52	57	26	0.47	5	5	21
SOLDIERS' & AIRMEN'S HOME	1,056	0	0.00	0	0	0	0	0.00	0	0	0
TENNESSEE VALLEY AUTH	30,589	240	0.78	187	110	130	92	0.30	72	42	50
U.S. INFORMATION AGENCY	4,511	35	0.78	26	9	26	5	0.11	3	0	5
VETERANS ADMIN	222,055	1,508	0.68	938	831	677	654	0.29	420	438	216
LEGISLATIVE BRANCH											
GENERAL ACCOUNTING OFFICE	5,100	11	0.22	5	1	10	3	0.06	0	0	3
GOVERNMENT PRINTING OFC	5,292	40	0.76	19	25	15	13	0.25	4	7	6
LIBRARY OF CONGRESS	4,809	36	0.75	14	9	27	15	0.31	3	4	11
U.S. TAX COURT	311	4	1.29	4	2	2	0	0.00	0	0	0
TOTALS	2,196,754	13,167	0.60	8,187	8,543	6,624	3,690	0.17	2,111	2,083	1,607

12101 Falls Road
Hunt Valley, Maryland 21030
May 6, 1987

Senator Joseph R. Biden, Jr.
Chairman, Senate Committee on the Judiciary
Senate Russell Office Building 489
United States Senate
Washington, DC 20510

Dear Senator Biden:

It is my understanding that you are now holding hearings in the Judiciary Committee on the general issue of drug and alcohol testing. If there will be an opportunity for testimony from citizens, I would like to share our views with the Committee. If not, I hope it will be possible to include the following comments in the formal record of your hearings.

I have a particular interest in the issue of testing, identification, and rehabilitation of drug and alcohol abusers in public transportation because my 16 year old daughter Ceres was killed in the January 4 Amtrak/Conrail crash in Maryland while she was returning to her freshman year final exams at Princeton University. Out of a decent respect for the memory of Ceres and the other fifteen victims of that crash, it is important that you and your colleagues use the lessons learned from it to write new laws that will make such a tragedy less likely in the future. In an attachment I have described in detail six proposals that I hope can be considered seriously as the Senate drafts legislation, but let me comment specifically on the matter of drug and alcohol abuse.

While we must all be sensitive to the constitutional protections that make America the land of the free, there is a growing consensus that society must take steps to protect itself and its citizens from the predations of substance abusers. Drug-impaired employees who threaten public safety are internal terrorists who must be stamped out, and there seems to be no practical alternative to mandatory random and "reasonable suspicion" testing along with pro-active voluntary treatment programs. The Conrail engineer who apparently caused the crash is a self-described alcoholic who tested positive for marijuana after the crash. He was quoted in the newspapers as saying that what he did on his own time was his own business, but of course that is completely outrageous when what he does on his time affects the safety of the public. No one has an unqualified **right** to be an engineer or pilot; such a position of public trust is a **privilege** that carries with it certain obligations, and we can reasonably hold such persons to a higher standard of behavior than the average citizen. Clearly written legislation that deals with this problem effectively is needed if we are to avoid the spectacle of protracted challenges in the courts to ad hoc executive attempts to deal with this problem based on less-than-crystal-clear statutes.

Drug tests are only one of several ways used successfully in the nuclear power industry to identify potential substance abusers; many troubled employees give evidence of their problems through poor driving records, arrests for criminal matters, and medical problems. The Conrail engineer had been arrested on December 5, 1986, only a month before the crash, for drunken driving and running red lights, charges to which he pleaded guilty last Friday. Unfortunately, this kind of information, even where publicly available, is not now being used by everyone in the transportation industry to evaluate the fitness for service of safety-critical employees. There is no central data bank to receive information about these people, so even if one company acquires vital information about a transient employee, the next employer may remain ignorant of it. Moreover, rail industry executives testified in Senate Commerce Committee hearings chaired by Senator Exon on February 17 that their current labor contracts prohibit them from using this information even if they had it. By contrast, the Mass Transit Administration in Maryland (operators of the bus and subway system in the Baltimore area) has explicit provisions in its union contract for using driving-record information to remove from service employees whose driving license is suspended due to reckless driving or driving under the influence of drugs or alcohol. Uniform licensing (as a means to require data collection) and a public national data bank for the interstate transportation industry (to receive these data and make them available) are discussed in the attachment. Proposals by Representative Collins and others to use the National Driver Registry to obtain some of these data are seriously flawed, but such proposals express a need for the kind of quality data that should be available in a national data bank for the transportation industry. I would be happy to discuss technical aspects of creating and using such a data base with you or your staff if that would be helpful.

There is now ample empirical evidence that direct observation of employees, even by trained supervisors, is not always effective in identifying substance-impaired employees. The most recent instance of failure of direct observation to detect employees who shortly later tested positive for drugs was, of course, the recent Amtrak/Conrail crash itself. Shortly before the crash, the Conrail engineer and brakeman (both of whom tested positive for marijuana; the brakeman also tested positive for PCP) were observed directly by a Conrail supervisor who had been specifically trained to identify "tell-tale signs" of drug and alcohol abuse, but he testified that he saw nothing in their behavior to make him suspect that they had been using drugs or alcohol. Those who propose that drug testing must be triggered only by positive direct observational evidence are proposing a provably inadequate method to identify substance abusers.

There have been at least 48 railroad accidents since 1975 in which drugs or alcohol were found to be "directly affecting" causes, and it seems highly likely that impairment of judgement by marijuana will be found to be a prime cause of the Amtrak/Conrail crash on January 4. Thus, identifying drug and alcohol abusers and removing them from safety-critical assignments in the transportation industry is not some academic issue about which we can endlessly spin esoteric legal theories. Citizens are being killed and maimed in public transportation because of drug and alcohol abuse and the Congress needs to take effective steps to do something about it *now*.

It seems to me that the best opportunity we will have this year to address the drug/alcohol abuse issue is with S.1041 (Transportation Employee Safety and Rehabilitation Act of 1987), which was reported out of the Senate Commerce Committee on April 15 with an affirmative vote of 19 to 1. It gets drug and alcohol abusers out of safety-critical transportation positions, and into rehabilitation programs. It provides safeguards for privacy, confidentiality, and confirmation of all positive tests, so it is fair and humane to employees. It also provides for pre-employment, post-accident, periodic, random, and reasonable suspicion testing, so it gives some assurance to the public that their safety is being protected. I hope you and other members of the Committee on the Judiciary will request that S.1041 be brought to the floor of the Senate promptly for debate and will support it there with your votes.

If there is any way I can be of assistance to you and your colleagues as you consider these issues, please feel free to call on me.

Sincerely yours,

Roger A. Horn, Ph.D.

Attachment

REMARKS ON TRANSPORTATION SAFETY, BASED ON TESTIMONY TO THE SENATE SUBCOMMITTEE ON TRANSPORTATION COMMITTEE ON APPROPRIATIONS

January 20, 1986

My name is Roger Horn. I am a professor of mathematical sciences at Johns Hopkins University in Baltimore. I have no professional expertise in the transportation industry; my qualification to present some ideas on transportation safety is that my 16 year old daughter was killed in the January 4 Amtrak crash while returning from our home in Baltimore to Princeton University for her freshman year fall term final exams.

At first it seemed that this terrible event was a random accident, the sort of thing that, despite the best-engineered controls, may occasionally happen in an industry that otherwise enjoys a laudable passenger safety record. But as the days have passed and initial investigation findings have been released, the horror of the crash has been compounded by a growing realization that it was entirely preventable and resulted from violations of common sense by railroad employees, managers, and regulators.

Those of us who have suffered most directly from this tragedy hope that it may be a stimulus to the Congress to enact new legislation that will restore the faith of the travelling public and make a repetition less likely. We also hope that the Executive Branch, through the Department of Transportation and the regulatory agencies, will increase their vigilance on behalf of public safety and will actively seek new authority from Congress for this purpose where necessary. Although our thoughts are naturally focussed on the railroad industry, the safety issues we are discussing are common to all forms of interstate transportation, and the following suggestions apply to all of them.

There are six specific areas that should be considered for new legislation and/or more active regulation:

1. **Uniform Federal Licensing.** All operating personnel in interstate transportation (airline, train, truck, bus, barge, etc.) should be required to hold a current federal license. The primary purpose of the federal license should be to get all licensed personnel into a national data collection system. It would also record in a central location routine medical examination data and the type and timing of training programs undertaken, most under industry sponsorship, and therefore will assure the public that at least minimal training standards of skill are being set and met. Each license holder should have to apply for license renewal periodically, at which time a review of his or her record would be triggered. No one should be permitted to be an operator of an interstate transportation system unless he or she has a currently valid federal license.

> The type of licensing being proposed is neither onerous on employees nor expensive to administer; it is primarily a means of registration and data collection. Unless future experience indicates that detailed and costly testing of licensees by federal authorities would be cost effective, it should not be undertaken. Primary responsibility for ensuring that operating personnel are properly trained would remain with the management of the transportation companies, but company management should be made personally responsible for discharging this important responsibility.

2. **National Data Bank.** There should be a single national computer-based data bank containing specific information on all Federal transportation license holders and interstate transportation companies. It should contain: Basic identification data, summary cumulative information on training programs completed and routine medical examinations, and a cumulative record of reportable events. The data bank should be available on-line to the public, and ease of public use should be a primary criterion in its design. Sample data elements are listed in Attachment I. The cost of operating the licensing system and national data bank could be met by license fees paid by individual license holders and fees paid by interstate transportation companies based on the number of their employees licensed.

> It is absolutely essential that the data be available for press and public scrutiny and that it be organized in a way that makes on-line computer access and searching convenient. Modern computerized database technology makes the achievement of all these objectives easy and economical. There is no need to identify license holders by name in the public data bank; identification by permanent code number is adequate for public data analysis purposes. The federal licensing authority would have a complete cross reference file of code numbers, license numbers, and names, and each transportation company would have a similar cross reference file for its own employees.

3. **Reportable Events.** Each federal transportation license holder and interstate transportation company should be required to report promptly to the national data bank, with standard forms, every instance of certain reportable events: arrest on any criminal charge, citation for any automobile traffic violation, suspension of automobile license, safety violations on the job, accidents on the job, specific medical events, substance abuse, completion of substance abuse rehabilitation programs, citation by regulatory agencies for safety or operating violations, etc. The disposition of any reportable event must also be reported. The requirement to make a timely, accurate, and complete report should be given teeth by a criminal penalty for failure to do so. Regulatory standards should be developed that require a fitness hearing for any license holder whose record meets certain standards, together with grounds for suspension or revocation of a license.

> The clear light of publicity may be more effective and less costly than reams of regulations in encouraging adherence to safety rules and sound operating procedures. A history of chronic disregard of rules or a pattern of personal or corporate behavior indicating a need for further scrutiny would be apparent in the cumulative record of the data bank. With such data available, management can be made clearly responsible for continual scrutiny of the fitness of their employees for public trust and can require early programs of counseling and rehabilitation for troubled employees before they cause a catastrophe. See Attachment II for the traffic conviction record in only one state (Maryland) of the Conrail engineer in the January 4 crash. It lists 12 convictions and 2 license suspensions through December 11, 1986; an arrest on December 5, 1986 for drunken driving and running through a stop sign and a red traffic light (actions very similar to what he apparently did a month later on the railroad) is not shown on the record since trial is not scheduled until March 4, 1987. The public cannot understand why a person with a long history of automobile traffic violations, indicating chronic disrespect for laws and rules, should ever be entrusted with operating responsibility in public transportation, which requires rigorous adherence to laws and rules.

4. **Dealing with Substance Abuse.** Every interstate transportation company should be required to have in operation a pro-active program for voluntary and cooperative identification of, counseling for, and assistance to substance abusers. Identification, prevention, and rehabilitation should be the first line of defense against substance abusers in both labor and management. Self-identified first-time substance abusers who enroll in the voluntary program should be dealt with on a non-disciplinary basis. A program of required testing both for probable cause and on a fair random basis is also necessary for federal licence holders, **not as the only way** to deal with substance abuse, but as essential components of an overall program designed to ensure a workplace free of substance abuse. The primary purpose of random testing is to encourage voluntary participation in the pro-active voluntary program. The reportable events component of the national data bank can be useful in identifying patterns of behavior that may be associated with substance abuse.

> The public has a right to know that the persons operating their transportation systems are not substance-impaired. This right surely transcends important constitutional and

> personal objections to compulsory testing. The privilege of being an operator of a transportation system carries with it special obligations, and such persons can reasonably be held to a high standard of performance. Just as employees have a right to a safe workplace, enforced by OSHA, employers should have the right and the obligation to determine employees' fitness for service in the workplace.

5. **Safety Devices and Procedures.** Regulatory agencies should have the authority to require, and should require, interstate transportation companies to install modern safety devices and procedures as they are developed and become feasible. Simple existing devices such as working radios and automatic derailing systems should not be ignored in favor of flashy new high-tech devices. Merely installing safety devices is not enough, of course: these devices must be in working order and must be operated by alert and responsible employees. Pre-dispatch working condition of all critical safety systems should be attested in writing by both operating and maintenance personnel, subject to criminal penalties for failure to do so or falsification of records. Management should be **required** to make periodic and random checks of equipment in service. Regulatory agencies should be **empowered and required** to make periodic and random checks of employees, management supervision, and equipment at time of dispatch.

> Regulatory agencies, often under the apparent influence of the industries they regulate, have not always established a historical record for requiring use of proven safety technologies or for fostering development of new safety technology. Because safety devices and procedures usually cost money and do not usually improve productivity, transportation companies have natural incentives to resist installation of safety devices and implementation of safety procedures. This makes safety regulation a natural government interest, but the public cannot understand why our regulators are so slow to study and make rules and so hesitant to seek new legislative mandates for improved regulation as technology and knowledge improve. As a creative way to encourage development of new safety devices and procedures, regulatory agencies could sponsor an annual inventor's competition with a cash prize.

6. **Responsibilities of Management and Labor.** Management responsibility to implement and enforce safety rules and procedures and report reportable events, and employee responsibility to observe safety rules and procedures and report reportable events, should be emphasized with personal criminal liability.

> Fines imposed only on companies and only after long and costly administrative hearings are simply not an effective deterrent to managerial nonfeasance or misfeasance, or to employee misconduct. They are paid by the customer or subsidy-giver in the end, not by the manager or the employee. Who will care, take notice, or be deterred from future violations if Conrail has to pay a $500 fine for allowing warning whistles to remain taped over, a condition that must have been (or should have been) known to both maintenance employees and first-line supervision? Will it make the managers of Amtrak any more vigilant in preventing dangerous excessive or unauthorized speeds by their passenger trains if the Federal Railroad Administration (a government agency) eventually fines Amtrak (another government agency) for the actions of their engineer in the January 4 crash? The effectiveness of personal criminal liability is now well-recognized in antitrust law. Is the safety of the travelling public any less important than preventing price-fixing? If managers and employees face personal criminal liability in the safety area, rigorous enforcement and observance of safety rules and procedures may be expected to become a high priority for both. The public cannot understand why

> it is not now a crime to disable a railroad safety device, operate a train while using drugs, or negligently fail to supervise people who do these things.

Apparently the only federal criminal penalties for substance abuse by interstate transportation operators are in the Federal Anti-Drug Abuse Act of 1986, Subtitle T, Chapter 17a, which provides for a prison sentence of up to 5 years or a $10,000 fine or both for operating a common carrier while under the influence of alcohol or drugs. It provides that a blood alcohol level of at least .10 is presumptive evidence of "under the influence", but sets no similar quantitative standard for drugs (it refers to detection of levels sufficient to impair and thereby invites a court battle of expert opinions in any prosecution under this statute). This new law should be strengthened to provide that any illegal drug levels in blood or urine above trace amounts shall be presumptive evidence of impairment. Many drugs have long-lasting effects on judgement and perception, and there should be no place in the public transportation cab or cockpit for anyone who uses illegal drugs at any time in any quantity.

Nothing in these six areas is expensive or exotic, and action could be taken to implement all of them in 1987.

It is neither possible nor desirable to have a federal inspector in the cab of every interstate vehicle, but in a free society it is possible to put in place self-activating mechanisms and incentives, followed by criminal penalties when necessary, that will encourage adherence to the best available standards of public safety in the transportation industry.

Roger A. Horn
12101 Falls Road
Hunt Valley, Maryland 21030
301/561-0579

ATTACHMENT I

SAMPLE DATA ELEMENTS IN THE RECORD OF A LICENSE HOLDER

Non-Public Data Elements

Name
Social security number
License number
Month and day of birth
Address
Home telephone number
Work telephone number
Name, address, and telephone number of personal physician
Name, address, and telephone number of personal dentist
Fingerprints

Public Data Elements

Permanent code number (linked to license number in separate confidential file)

Position classification code (engineer, pilot, brakeman, barge operator, etc. per separate public file)

Employer identification code (linked to company name in separate public file)

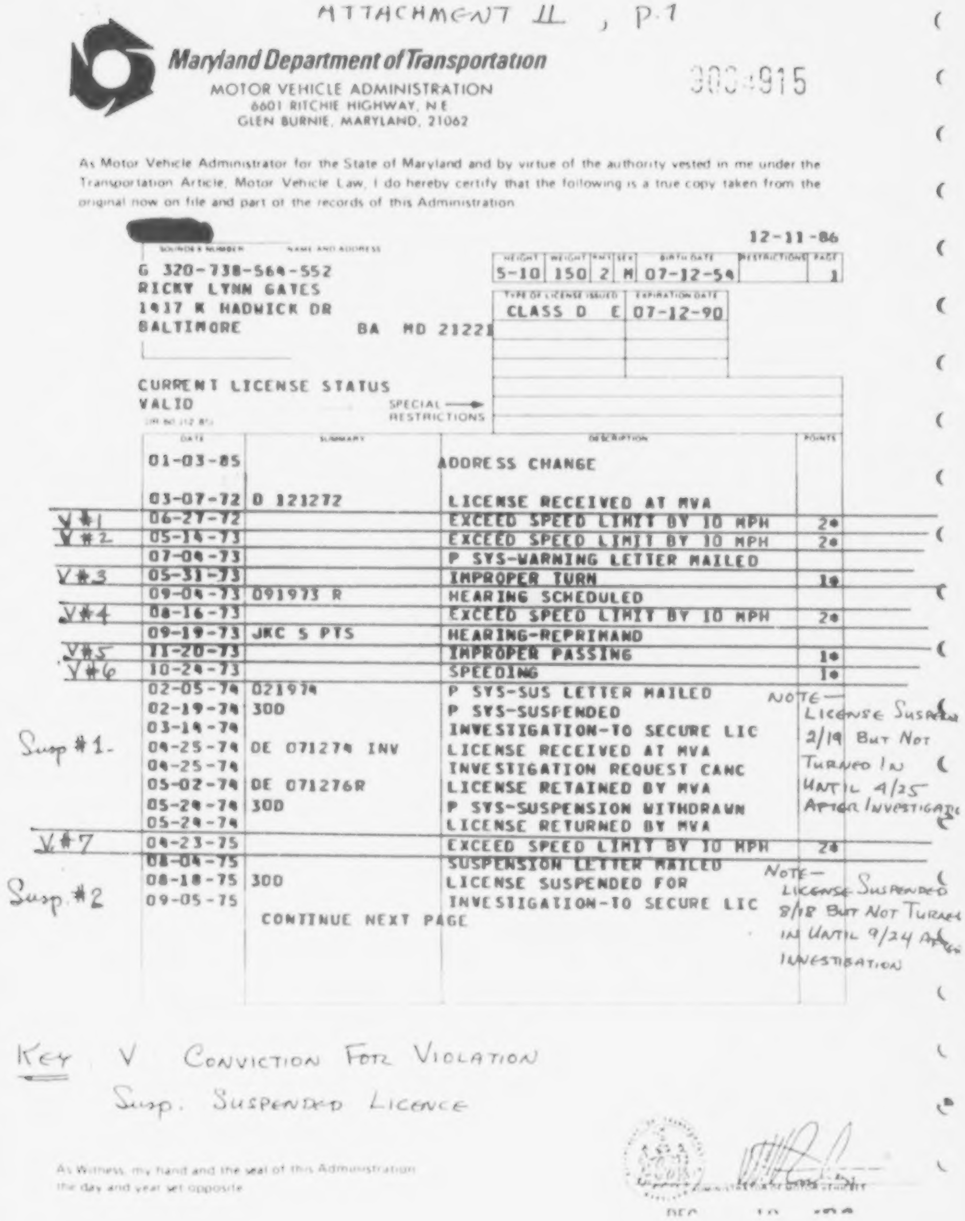
Year of birth

List of minimum qualifications for the operating position, as established by the employer or regulatory body, dates the license holder met each qualification, scores if applicable

Additional courses or tests passed beyond the minimum qualifications, with dates and scores

One record for each routine or special medical exam and hospitalization, as required by the employer or regulatory agency, containing selected data elements appropriate to the operating position, such as blood pressure, pulse rate, reaction to stress test, EKG findings, EEG findings, blood chemistry, levels of specific substances, vision test, hearing test, etc., as well as a limited amount of text for evaluation and recommendations.

One record for each reportable event, including arrest on any criminal charge, citation for any automobile traffic violation, suspension of automobile license, safety violations on the job, accidents on the job, disciplinary action on the job, substance abuse, and similar pertinent events, as well as a limited amount of text to be provided at the option of the license holder. Disposition of any reportable event (such as conviction or acquittal subsequent to an arrest, successful completion of a substance abuse treatment program, return to regular status following disciplinary action, etc.) is also a reportable event.



ATTACHMENT II, p.1

Maryland Department of Transportation
MOTOR VEHICLE ADMINISTRATION
6601 RITCHIE HIGHWAY, N.E.
GLEN BURNIE, MARYLAND, 21062

3004915

As Motor Vehicle Administrator for the State of Maryland and by virtue of the authority vested in me under the Transportation Article, Motor Vehicle Law, I do hereby certify that the following is a true copy taken from the original now on file and part of the records of this Administration.

[redacted]

12-11-86

SOUNDEX NUMBER — NAME AND ADDRESS
G 320-738-564-552
RICKY LYNN GATES
1417 K HADWICK DR
BALTIMORE BA MD 21221

HEIGHT	WEIGHT	[illegible]	SEX	BIRTH DATE	RESTRICTIONS	PAGE
5-10	150	2	M	07-12-54		1

TYPE OF LICENSE ISSUED	EXPIRATION DATE
CLASS D E	07-12-90

CURRENT LICENSE STATUS
VALID
DR 60 (12 85)

SPECIAL RESTRICTIONS →

	DATE	SUMMARY	DESCRIPTION	POINTS
	01-03-85		ADDRESS CHANGE	
	03-07-72	D 121272	LICENSE RECEIVED AT MVA	
V#1	06-27-72		EXCEED SPEED LIMIT BY 10 MPH	2*
V#2	05-14-73		EXCEED SPEED LIMIT BY 10 MPH	2*
	07-04-73		P SYS-WARNING LETTER MAILED	
V#3	05-31-73		IMPROPER TURN	1*
	09-04-73	091973 R	HEARING SCHEDULED	
V#4	08-16-73		EXCEED SPEED LIMIT BY 10 MPH	2*
	09-19-73	JKC 5 PTS	HEARING-REPRIMAND	
V#5	11-20-73		IMPROPER PASSING	1*
V#6	10-24-73		SPEEDING	1*
	02-05-74	021974	P SYS-SUS LETTER MAILED	
	02-19-74	300	P SYS-SUSPENDED	
	03-14-74		INVESTIGATION-TO SECURE LIC	
Susp #1-	04-25-74	DE 071274 INV	LICENSE RECEIVED AT MVA	
	04-25-74		INVESTIGATION REQUEST CANC	
	05-02-74	DE 071276R	LICENSE RETAINED BY MVA	
	05-24-74	300	P SYS-SUSPENSION WITHDRAWN	
	05-24-74		LICENSE RETURNED BY MVA	
V#7	04-23-75		EXCEED SPEED LIMIT BY 10 MPH	2*
	08-04-75		SUSPENSION LETTER MAILED	
	08-18-75	300	LICENSE SUSPENDED FOR	
Susp. #2	09-05-75		INVESTIGATION-TO SECURE LIC	
		CONTINUE NEXT PAGE		

NOTE—
LICENSE SUSPENDED 2/19 BUT NOT TURNED IN UNTIL 4/25 AFTER INVESTIGATION

NOTE—
LICENSE SUSPENDED 8/18 BUT NOT TURNED IN UNTIL 9/24 AFTER INVESTIGATION

KEY V CONVICTION FOR VIOLATION
Susp. SUSPENDED LICENCE

As Witness, my hand and the seal of this Administration the day and year set opposite.

Administrator of Motor Vehicles

DEC 10 '86

ATTACHMENT II, p. 2

Maryland Department of Transportation
MOTOR VEHICLE ADMINISTRATION
6601 RITCHIE HIGHWAY, N.E.
GLEN BURNIE, MARYLAND, 21062

9034916

As Motor Vehicle Administrator for the State of Maryland and by virtue of the authority vested in me under the Transportation Article, Motor Vehicle Law, I do hereby certify that the following is a true copy taken from the original now on file and part of the records of this Administration.

[redacted]

12-11-86

SOUNDEX NUMBER NAME AND ADDRESS

6 320-738-564-552
RICKY LYNN GATES
1417 K HADWICK DR
BALTIMORE BA MD 21221

HEIGHT	WEIGHT	RACE	SEX	BIRTH DATE	RESTRICTIONS	PAGE
5-10	150	2	M	07-12-54		2

TYPE OF LICENSE ISSUED	EXPIRATION DATE
CLASS D E	07-12-90

CURRENT LICENSE STATUS
VALID

SPECIAL → RESTRICTIONS

DR 60 (12-85)

			DESCRIPTION	POINTS
	09-24-75	DE0712T601 INV	LICENSE RECEIVED AT MVA	
	09-24-75		INVESTIGATION REQUEST CANC	
	10-23-75	081875	SUSPENSION WITHDRAWN	
	10-23-75		LICENSE RETURNED BY MVA	
√ #8	03-11-76	MOTORCYCLE	EXCEED SPEED LIMIT BY 10 MPH	2*
	05-04-76		P SYS-WARNING LETTER MAILED	
√ #9	09-10-79	MOTORCYCLE	SPEEDING	1*
√ #10	02-08-81		EXCEED SPEED LIMIT BY TEN MPH	2*
	03-23-81		P SYS-WARNING LETTER MAILED	
√ #11	11-12-83		NEGLIGENT DRIVING	1*
√ #12	03-26-85		EXCEED SPEED LIMIT BY TEN MPH	2
	04-30-85		P SYS-WARNING LETTER MAILED	
		RECORD END TOTAL	CURRENT POINTS	02

ARRESTED DECEMBER 5, 1986 FOR DRUNKEN DRIVING
SCHEDULED FOR TRIAL MARCH 4, 1987 IN DUNDALK DISTRICT COURT

As Witness, my hand and the seal of this Administration the day and year set opposite.

ADMINISTRATOR OF MOTOR VEHICLES

DEC

STATEMENT BY
Arthur W. Johnson
Senate Committee on the Judiciary
May 13, 1987

Mr. Chairman, members of the Committee, my name is Arthur Johnson. I have become intensely interested in the subject you are studying today because our lovely twenty-year old daughter was killed in the Amtrak/CONRAIL accident on January 4, 1987 - an accident which should not have happened, and may have been due to inattention by crews possibly impaired by substance abuse.

There were many safety violations involved in that accident which deserve remedial action, such as ignoring warning signals, deliberate disabling of equipment, and operating at speeds in excess of those authorized. However, I understand your deliberations today are to be limited to the issue of mandatory random testing for drugs and alcohol. I will concentrate on that question.

First, let me state categorically that I strongly support mandatory random testing for drugs and alcohol of all persons engaged in sensitive positions, and particularly for those who are entrusted with safety of life, especially in the transportation industry: rail, air, bus, and trucking. Such testing would act as a positive deterrent to the use of illicit drugs, improving safety for these employees themselves, as well as those they transport whose lives are in their hands.

I have listened carefully to the hearings in the Senate Commerce Committee, and the hearings of the National

Transportation Safety Board in Baltimore on the Amtrak accident, and have read and listened to the media on this subject.

Just recently there have been several pertinent items in the press. In the N.Y. Times on April 23rd there was a heading, "Drug Use in Military Drops; Pervasive Testing Credited." The lead paragraph says - "The use of illicit drugs in the armed forces has been down to the lowest point in six years, and officers in all four services credit the drop to the deterrent of pervasive testing through urinalysis."

On April 25th, a headline in the Washington Post read, "TVA Plans Drug Tests - Nuclear Workers Face Random Screening." Again, the N.Y. Times on April 23rd states, "A Federal appeals court today ruled the United States Customs Service could require applicants for certain jobs to submit to drug tests."

The usual arguments against mandatory testing come from various transportation associations, the carriers, and organized lobbies. The arguments focus on invasion of privacy, constitutional rights, and cost. To me, these arguments are totally unacceptable.

I honor and respect our Constitution. But I submit, Mr. Chairman, that when our founding fathers prepared that document, our society was not pervaded by illicit drugs, permissiveness, and all the attendant consequences. When I listen to these defensive statements about rights, the obvious reaction is - "What rights remain for my daughter, a victim of an unnecessary accident?"

I believe that if these transportation workers can not submit to an occasional random testing, for their own safety as well as that of others, management should relieve them of duties involving safety. As far as cost is concerned, if this is really a significant problem, the additional cost will be paid eventually by the using public, if it wishes to continue to use the service, and to be safe in so doing.

I earnestly hope that your deliberations will result in prompt and strong action in support of mandatory random testing as a positive step in the direction of improved safety for all. The Senate Commerce Committee has reported out the Transportation Safety and Rehabilitation Act of 1987 (S-1041) by the very strong vote of 19 to 1. This bill provides for mandatory random testing with adequate provisions to protect individual rights. It deserves your prompt attention. S-1041 should be brought quickly to the full Senate for debate. I hope that it will receive your strong support.

Thank you Mr. Chairman.

Submitted by:
Arthur W. Johnson
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Potomac, MD 20854
Tel (301) 340-3117